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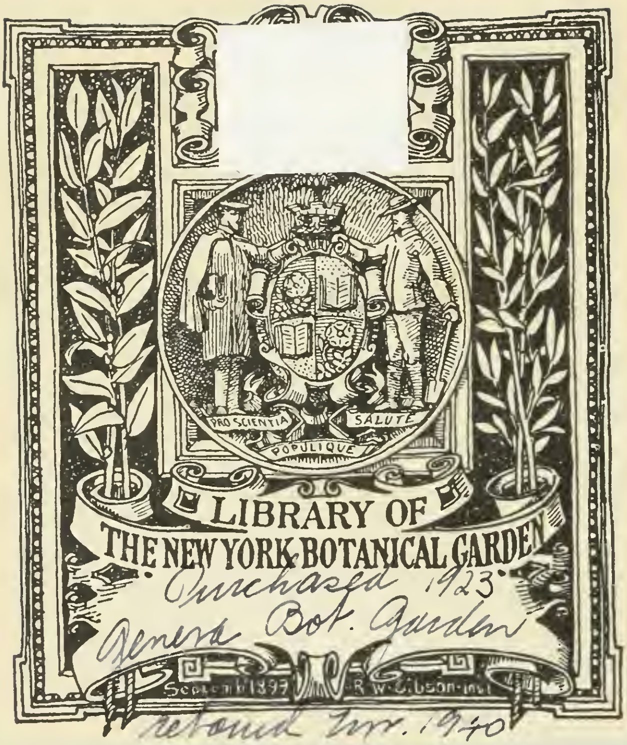
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EDWARDS'S
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OR,

ORNAMENTAL FLOWER-GARDEN AND SHRUBBERY:

CONSISTING OF

COLOURED FIGURES OF PLANTS AND SHRUBS,
CULTIVATED IN BRITISH GARDENS;

ACCOMPANIED BY THEIR

History, Best Method of Treatment in Cultivation, Propagation, &c.

AND

MONTHLY CHRONICLE

OF

BOTANICAL AND HORTICULTURAL NEWS.

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CONTINUED

By JOHN LINDLEY, Ph. D. F.R.S. AND L.S.

PROFESSOR OF BOTANY IN UNIVERSITY COLLEGE, LONDON,
AND THE ROYAL INSTITUTION OF GREAT BRITAIN,
VICE-SECRETARY OF THE HORTICULTURAL SOCIETY,
&c. &c. &c.

1838.

OR VOL. XXIV. OF THE ENTIRE WORK.
OR VOL. XI. OF THE NEW SERIES.

——viret semper——nec fronde caducâ
Carpitur.

LONDON:
JAMES RIDGWAY AND SONS, PICCADILLY.

M.DCCC.XXXVIII.

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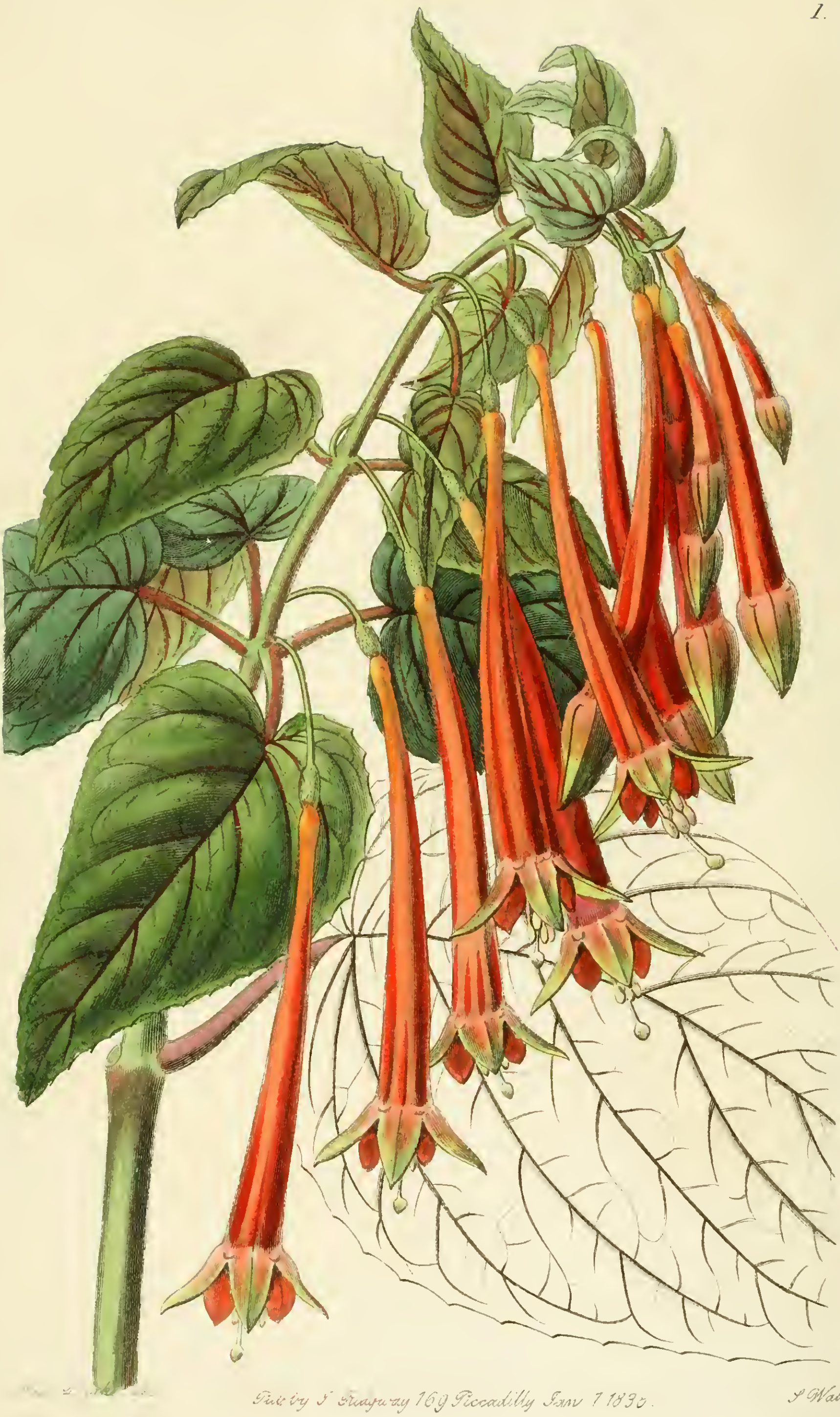

[illegible] Pub. by J. Ridgway 169 Piccadilly Jan 1 1830. S. Watts sc.

* FŪCHSĬA fulgens.

The glowing Fuchsia.

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OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRACEÆ.
FUCHSIA. Bot. Reg. vol. 10. *fol.* 847.

F. *fulgens;* ramis glabris, foliis oppositis cordato-ovatis acutis denticulatis glabris, pediculis axillaribus flore brevioribus superioribus racemosis, calycis lobis ovato-lanceolatis acutis petala acutiuscula superantibus. *DC. prodr.* 3. 39.

Frutex *glaber, glaucus, tener, densè foliosus, colore vinoso tinctus.* Caulis *texturæ herbaceæ subsucculentæ.* Folia *tenuia, ovata, cordata, acuta, dentata s. denticulata, ciliata, petiolo semitereti canaliculato levissimè pubescente duplo longiora.* Flores *solitarii, ex axillis foliorum superiorum penduli, racemum secundum efficientes.* Pedunculi *filiformes, semipollicares.* Ovarium *oblongum, pubescens, polyspermum, 4-loculare, ovulis biseriatis.* Stylus *filiformis, exsertus;* stigma *capitatum, conicum.* Calyx 2½ *pollices longus, infundibularis, basi ventricosus, leviter pubescens, miniatus; laciniis triangularibus, acutis, planis, apice virescentibus.* Petala *ovata, obtusa, plana, sepalis paulò breviora, sanguinea.* Stamina 8; *fauce inserta, sepalis breviora; ea petalis opposita paulo breviora: antheris sæpius extrorsùm resupinatis.*

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* See Bot. Regist. fol. 1269.——It will be observed that an alteration in the plan of accenting the names of plants is now for the first time introduced into this work; a few words are desirable in explanation of this. It is by no means easy to point out by typographical signs in what way words are to be accented; and the usual plan of indicating by a ′ the syllable on which the accent is to be placed in pronouncing the word is by no means efficient; nor does it appear that the introduction of the ` as an additional sign, is of any real advantage to the unlearned reader, for whose use alone such contrivances are required. I therefore think that in substituting the ordinary metrical signs of long (¯) and short (˘) for the usual accentual marks, at least nothing will be lost, and that probably something may be gained; provided it is only remembered that these signs are used to express accent, and not what is technically called quantity; that is the ¯ is placed over the vowels of syllables on which accent is placed, and the ˘ over those on which no stress is laid by the voice. It will necessarily often happen that syllables are marked ¯ which are rhythmically ˘, but I cannot anticipate any inconvenience from this, after the explanation that such signs are merely employed here to indicate the more important accented or unaccented syllables, and *not their actual quantity.*

Jan. 1838.

AUG 7 - 1923

This is probably the most beautiful plant of the *Temperate* Flora of Mexico. It was originally met with by Moçino and Sesse, two Spanish naturalists, authors of an unpublished Flora Mexicana, and has very lately been introduced to this country. The accompanying drawing was made from a plant in the possession of Mr. John Lee of Hammersmith, to whom the large silver medal of the Horticultural Society of London was awarded upon his exhibiting it at one of the meetings at the Society's house in Regent Street.

It is difficult to conceive any thing more brilliant than the appearance of this species, when its rich vermilion-coloured flowers are formed beneath the influence of a Mexican sun ; but if it is grown in a shaded situation, with too much heat and moisture, the bright colours inevitably fade, and the plant is deprived of half its beauty. It will no doubt prove a robust shrub of easy culture, growing freely in a mixture of loam and peat in the green-house ; cuttings of the young wood will strike freely in sand under a bell-glass on a moderate hot-bed. It is probably about as hardy as *F. arborescens,* and perhaps like that species not enough so to stand the winter, or to flower well in the open border, but it will certainly grow and flower freely in the green-house ; and it is by no means impossible that it may even succeed in the open air in good summers, in a warm sheltered situation.

This plant may serve as a specimen of what the genus Fuchsia is still able to yield of novelty and beauty. The species, now for the first time figured, only forms one of several that are quite able to rival it in appearance. I would especially direct the attention of those who have commercial relations with Peru to the Fuchsias inhabiting that part of South America. In the woods about Huassa-huassi and Muna, in particular, are some of the most magnificent species, one of which, called *Mollo-Ccantu,* or the *Beauty-plant,* was found by Mr. Mathews at Huamantanga. It would remunerate any nurseryman for the expense of a Peruvian collector, if he could only bring back alive five species of Fuchsia figured in the Flora Peruviana, not to mention the *F. dependens,* of which a plate will be found in Sir W. Hooker's excellent "Icones plantarum," (one of the cheapest and most useful books of the day), and some others.

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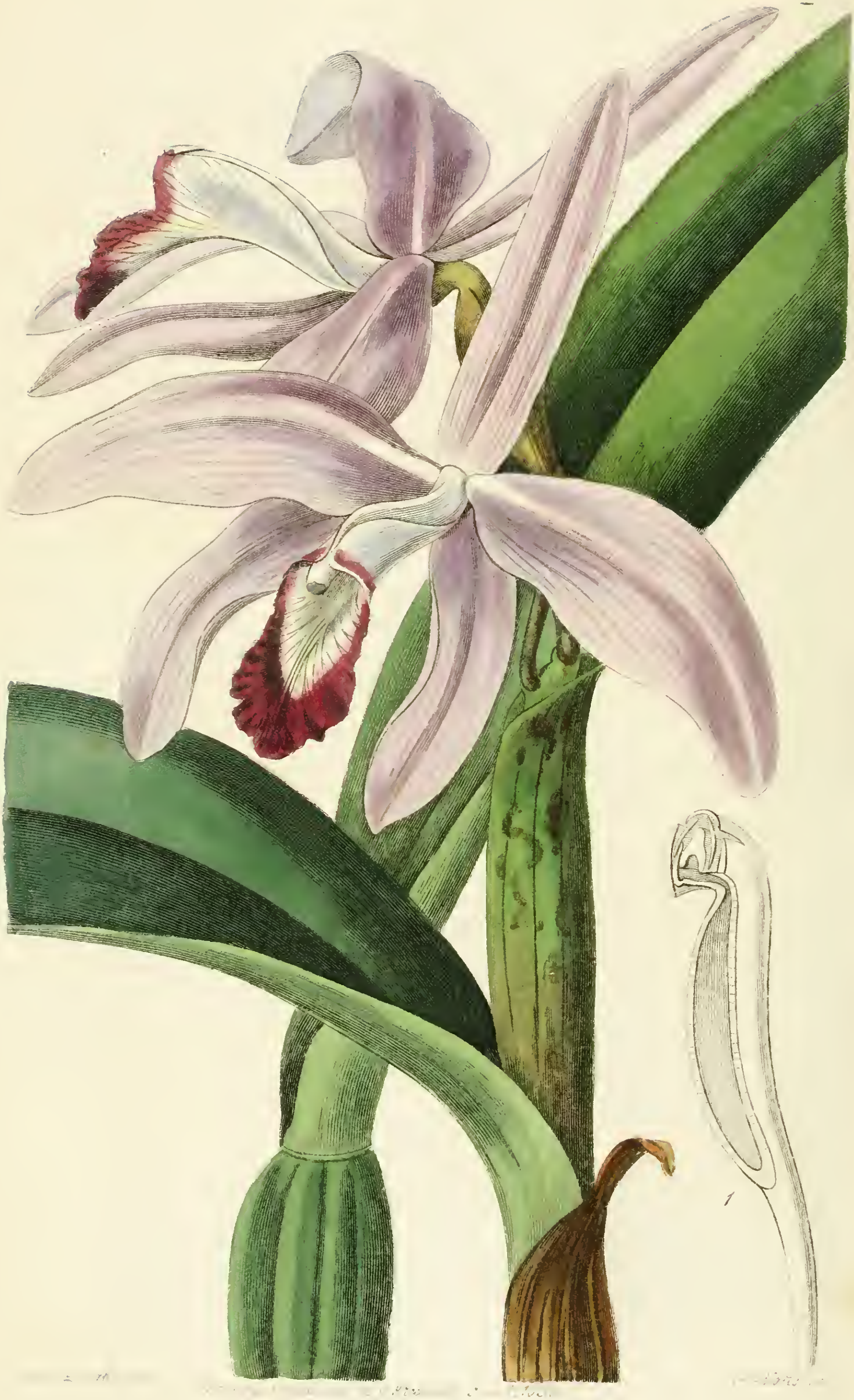

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* CĀTTLĔYA Perrīnĭi.

Mr. Perrin's Cattleya.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.
CATTLEYA. *Bot. Reg. vol.* 11. *fol.* 953.

C. *Perrinii;* foliis oblongis coriaceis cauli æqualibus, sepalis oblongis linearibus obtusis lateralibus falcatis petalis obtusis angustioribus, labello oblongo-lanceolato trilobo unguiculato nudo basi in cuniculum ventricosum producto; laciniis lateralibus erectis acutis intermediâ oblongâ undulatâ obtusâ elongatâ sinubus intermediis rectangulis.

I have for some years been acquainted with this Cattleya, which was originally sent me from the garden of Richard Harrison, Esq. with a drawing by Mr. Arnold Harrison. Since that time I have received it from Mr. Bateman, and more recently from Mr. Knight of the King's Road; on which last occasion the accompanying drawing was made.

This species is a native of Brazil, and is not unlike C. labiata, although inferior to it in beauty. It is distinguished readily by there being an inflated fistular cavity proceeding from the base of the lip to that of the ovary, and by the peculiar form of the lip, which is perfectly destitute of plaits, ridges, or other projections in its middle. It is probable that other species of this genus are furnished with a similar fistular passage, but if so it is not inflated, and consequently is not observable upon external inspection. Although this indicates the presence of a spur to the lip, yet it does not appear to be of more than specific importance, for we find in the genus Epidendrum some species with and others without

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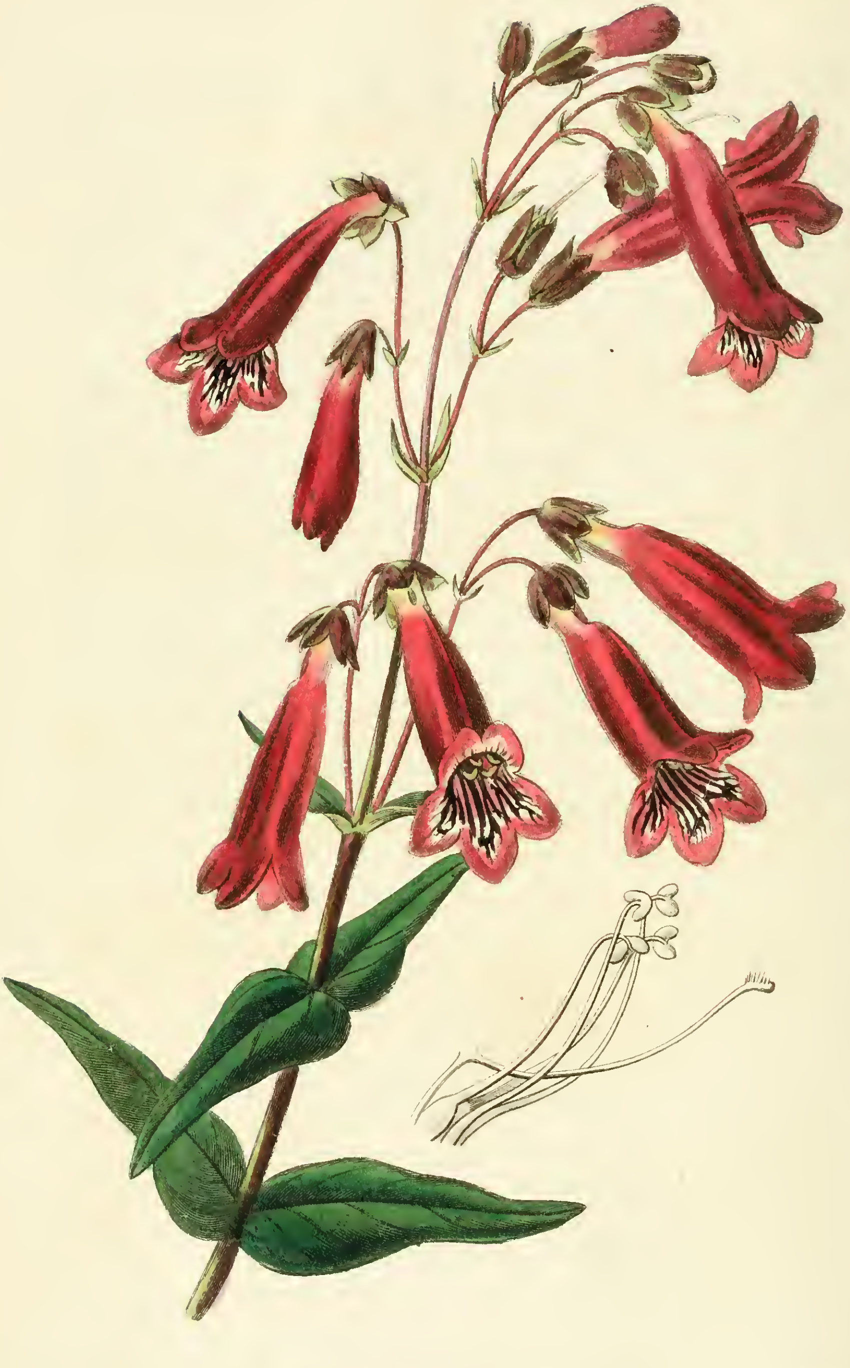
* See Bot. Reg. vol. 14. fol. 1172.

the same structure. Fig. 1, which represents a section of the lower part of the flower, explains the peculiarity now adverted to.

The species has been named after Mr. Perrin, Mr. Harrison's intelligent gardener, under whose care so many fine South American epiphytes have been for the first time brought into flower in this country.

Like the rest of the genus this requires to be grown in a moist stove, the temperature of which may be kept from 60 to 70 degrees of Fahr. in winter, and from 70° to 90°, or even 100° with sun heat, in summer. It is propagated, like the other plants of this order, by divisions of the rhizoma, or root-stock, with a stem adhering to them. The soil should consist of good peat, broken, or cut into pieces one inch, or one inch and a half square. The pots should be about half filled with broken bricks, or something of that description, to carry off superfluous water, and if they are plunged in a tan-bed, this will allow the heat to rise more freely than if the pots were wholly filled with soil. It is of the greatest importance to preserve and encourage the roots, and as they are generally protruded near the surface of the soil, it should be raised several inches above the level of the pots, in a pyramidal form, in order that they may have full room to push out.



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* PENTSTĒMON gentiānŏīdes.

Gentian-like Pentstemon.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARIACEÆ.
PENTSTEMON. *Bot. Reg. vol.* 13. *fol.* 1131.

P. *gentianoides;* caule supernè tenuissimè pubescente, foliis (ovato-) lanceolatis integerrimis glabris, laciniis calycinis ovatis, corollis imberbibus, stamine sterili glabro. *Humb. Bonpl. & Kunth, nov. gen. & sp. pl.* 2. 363. *t.* 172. *Kunth synops.* 2. 123. sub. Chelone.

A native of Mexico, found by Humboldt and Bonpland in cold stations on the slope of the snow-capped mountain of Toluco, at the height of 10,500 feet above the sea; flowering in September. Specimens of it were sent me by Mr. Groom, of Walworth, in September last; the plant had been obtained from Belgium.

It is a very ornamental and nearly hardy perennial, growing about three feet high in any rich garden soil, flowering freely from the end of June to September, and requiring the same treatment as P. atropurpureum and pulchellum. Like most of the Mexican species it seeds freely; the seeds should be sown about the middle of May, on a bed of light rich soil (covering the seeds with a little sandy peat) in the open border, but not fully exposed to the mid-day sun; the plants will be fit to pot in the autumn (September), and should be kept in a cold pit all the winter; they should be planted out where they are to remain about the middle of April. The plants will stand out all the winter unprotected, but generally suffer very much from the wet. Moreover they flower so freely as to become exhausted, and therefore should be raised from seeds or cuttings every season; the latter strike freely if taken from the young shoots about midsummer.

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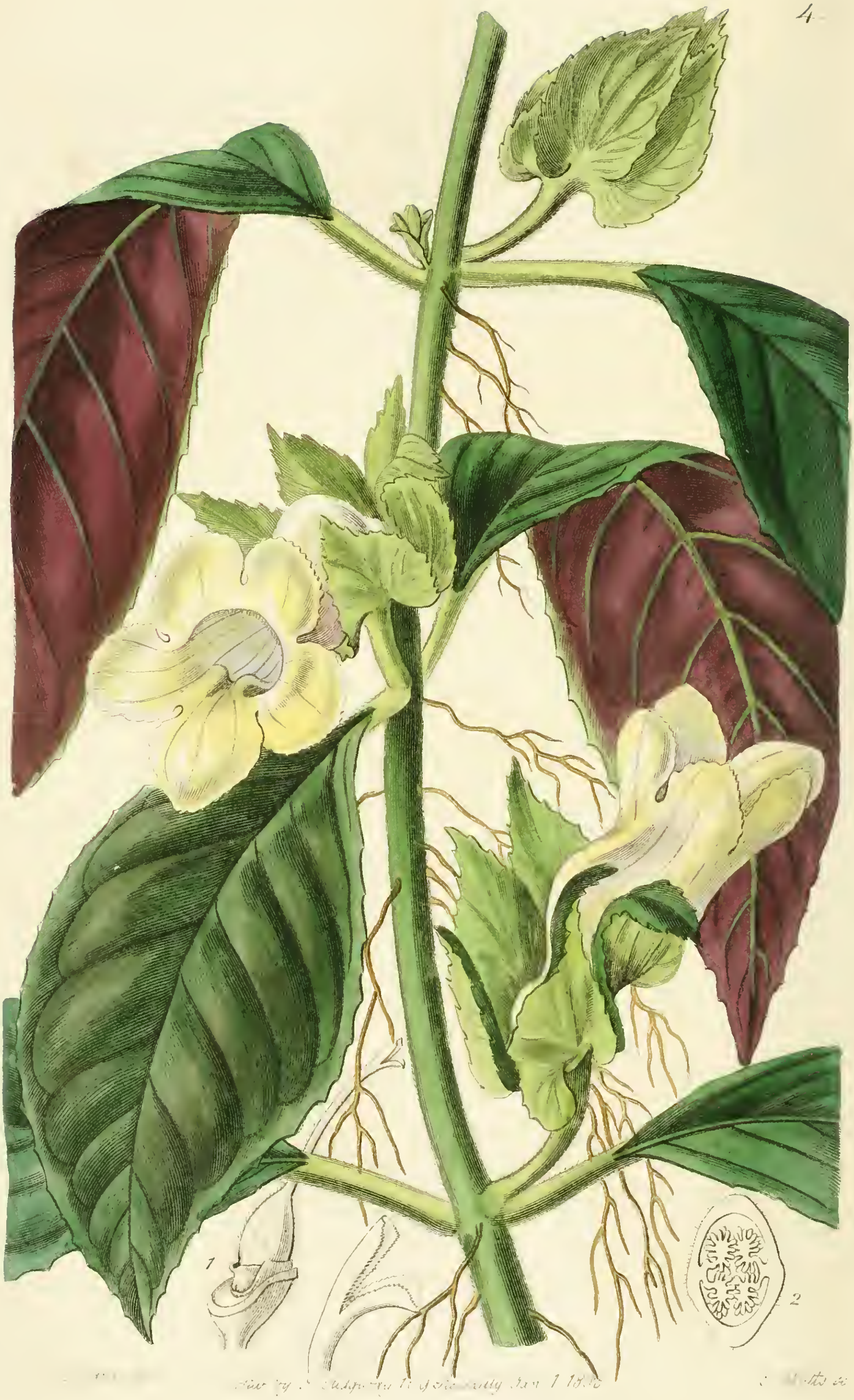
* Bot. Reg. vol. 15. fol. 1245.



Pub by J. Ridgway 169 Piccadilly Jan 1 1838

S. Watts sc

4

* DRY̆MŌNĬA bīcŏlor.

Two-coloured Woodwort.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. GESNERACEÆ.

DRYMONIA Martius. *Calyx* liber, obliquus, 5-phyllus; foliolis imbricatis, duobus interioribus. *Corolla* obliqua, campanulato-subringens, basi posticè gibba, fauce patulâ, labio superiore bilobo, inferiore trilobo. *Stamina* 4, didynama, antheris inter se liberis. *Rudimentum* nullum. *Annulus* hypogynus et glandula postica. *Capsula* baccans, ovata, coriacea, unilocularis, bivalvis; *placentis* duabus parietalibus bilamellosis, seminibus numerosis fusiformibus. *Martius nov. gen. & sp. pl.* 3. 57.

D. *bicolor;* foliis ovali-lanceolatis utrinque acutis denticulatis subtus discoloribus, floribus solitariis axillaribus, sepalis cordatis foliaceis serratis, corollæ laciniis serrulatis.

Besleria serrulata. *Jacq. hort. schönb.* 3. 21. *t.* 290. *Willd. sp. pl.* 3. 267.

Corolla *ochroleuca, glabra, dorso tumida, citò deliquescens; basi valdè obliqua; gibbis duobus in palatum.* Ovarium *pubescens.* Stigma *carnosum, bilamellatum: labiis subæqualibus canaliculatis serrulatis.*

A West Indian plant, inhabiting close, shady, damp woods, where it creeps upon the ground or climbs up the trunks of trees by the aid of numerous roots which it pushes forth from its stems like ivy.

The accompanying drawing was made in the hot-house of Mr. Knight, of the King's Road, in September, 1836.

Although not a showy plant, it may be found useful to cover the back wall of a hot-house, or any similar place where there is not light enough for other plants to grow. In such situations it spreads rapidly like ivy. No plant is more easily cultivated than this. It succeeds best when trained upon the wall of a moist stove, where it quickly fixes itself, and grows with great luxuriance. On this account the soil in which it is grown is not of so much importance as the atmosphere that surrounds it ; but a mixture of good loam and vegetable mould is found to suit it best. It is as easily propagated as grown, striking freely either by layers or cuttings.

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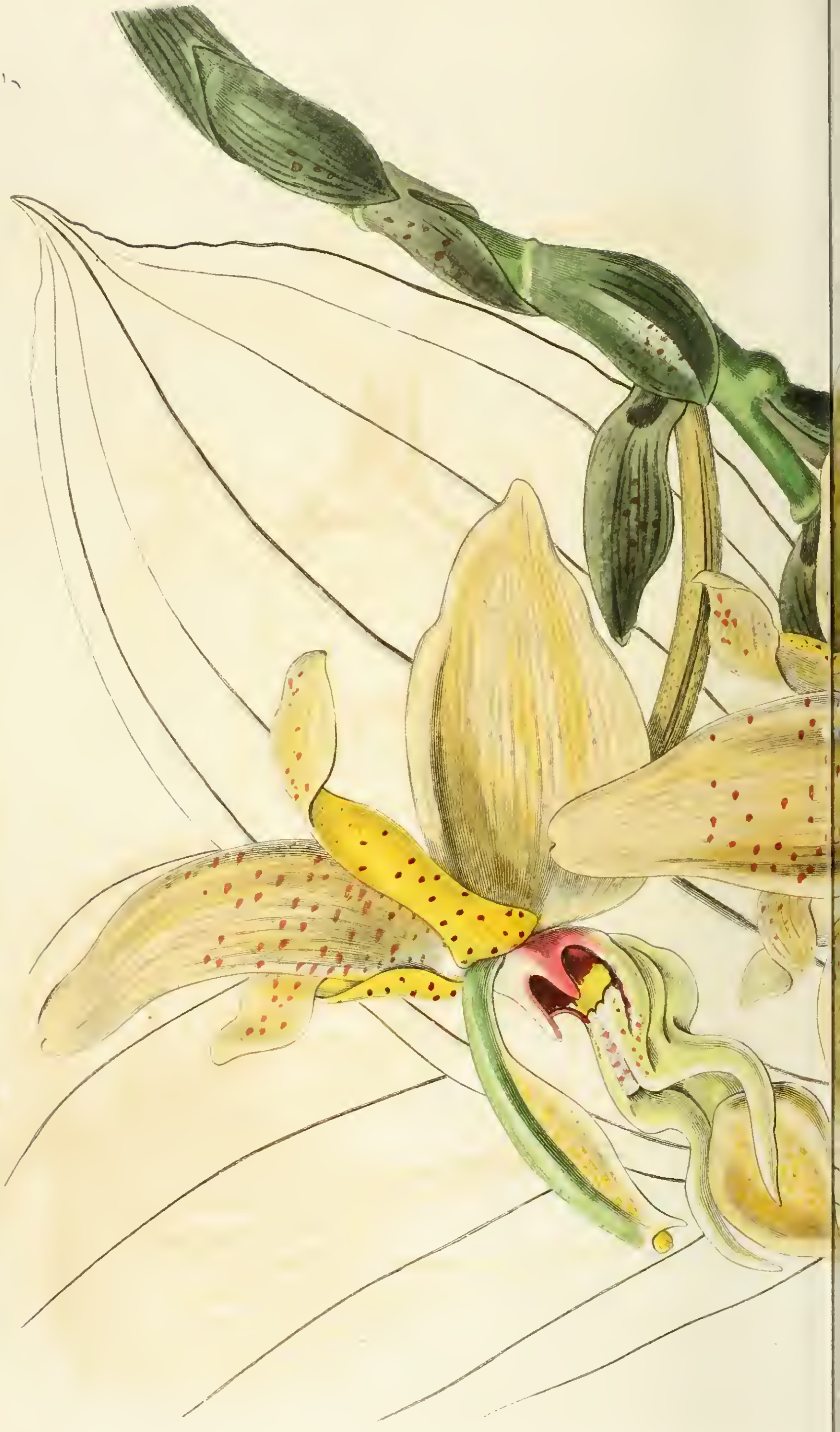
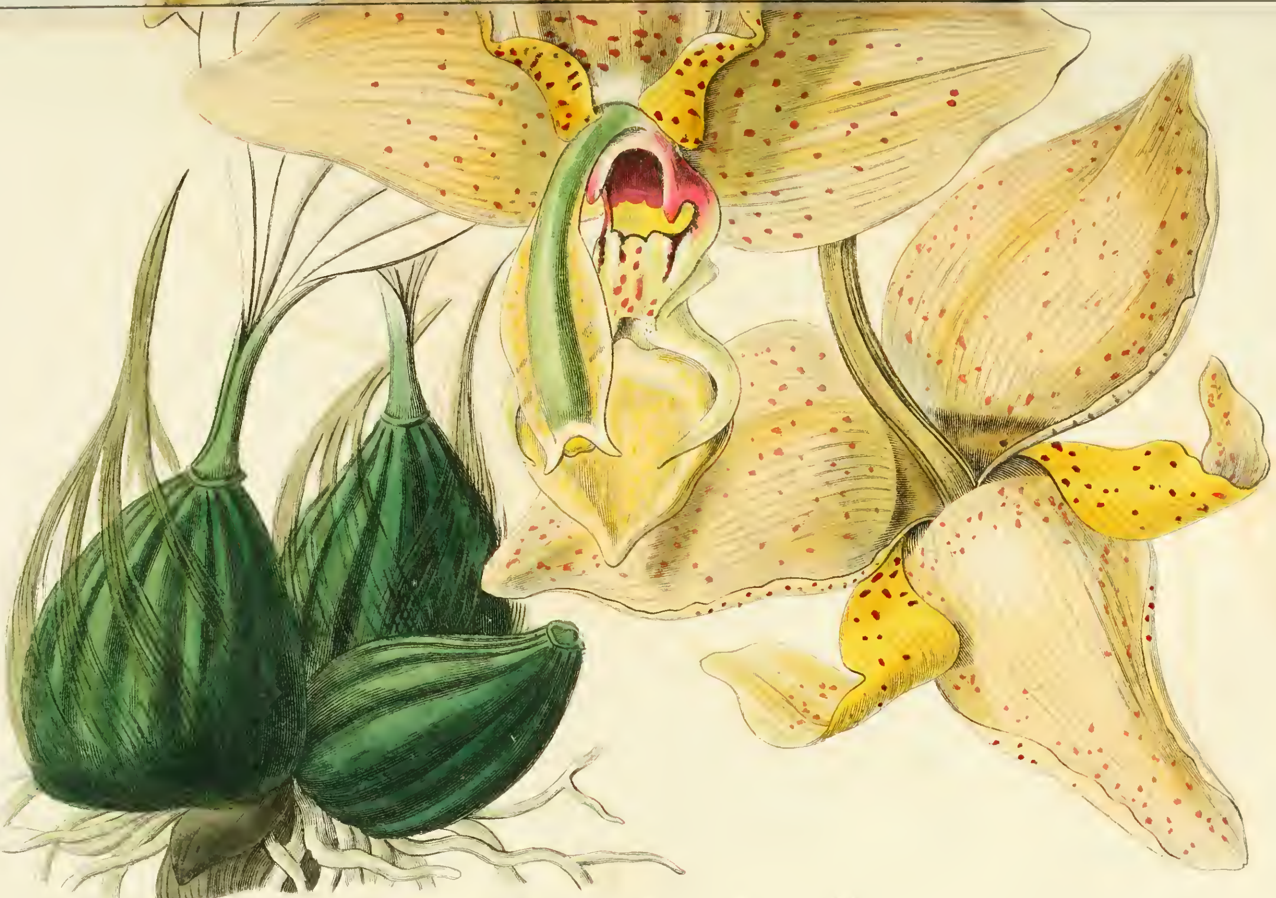
* From δρυμονια, woodland; the species inhabit forests.

Fig. 1. represents an ovary with the oblique hypogynous ring, and the large dorsal gland characteristic of the genus ; a little to the right and lower down is an unnumbered magnified view of the stigma. Fig. 2. represents a transverse section of the ovary, with the double parietal polyspermous placentæ.





ake d. Ridgway 169 Piccadilly Jan 1 183 Watts

* STANHŌPĔA quadrĭcōrnis.

Four-horned Stanhopea.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
STANHOPEA. *Bot. Reg. vol.* 18. *t.* 1529.

S. *quadricornis;* foliis oblongis utrinque acutis brevè petiolatis, labello medio constricto, hypochilii subrotundi basi bicornis lateribus rotundatis, epichilio ovato cornubus 2 baseos incurvis.

An exceedingly pretty species of Stanhopea, allied to S. oculata, from which it differs very obviously in the general want of spotting upon the flower, and especially in the two short horns which project from the crimson base of the lip. In some circumstances it also approaches S. insignis, especially in the colour and form of the sepals and petals, but the lip is altogether different.

I am indebted for my knowledge of the species to Sigismund Rucker, Esq. jun. of Wandsworth, who received it from the Spanish Main, and who informs me that the pseudo-bulbs and leaves are extremely like those of S. grandiflora.

It is with great pleasure that I lay before the readers of the Botanical Register the following excellent directions by Mr. Paxton for the cultivation of such plants, extracted from the first number of the Sertum Orchidaceum, just published.

"The success with which epiphytes are cultivated by Mr. Paxton is wonderful, and the climate in which this is effected, instead of being so hot and damp that the plants can only be seen with as much peril as if one had to visit them in an Indian jungle, is as mild and delightful as that of Madeira. As to luxuriance of growth, never have they been seen in their native woods in such perfect beauty. It, therefore, affords me no little satisfaction to be enabled, by the permission of the Duke of Devonshire, to publish the following account of the management of Orchidaceæ at Chatsworth, drawn up by Mr. Paxton himself.

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* See Bot. Reg. vol. 18. fol. 1529.

"The following treatment is not only applicable to the growth of Stanhopeas, and others of like habit, but an advantage in the growth of any species of Orchidaceæ (the terrestrial, and those that grow in moss excepted).

"Over the drainage hole of the pot to be used, is inverted one of a smaller size, generally covering about half the bottom of the pot; over this is carefully thrown a quantity of broken pots, sufficient to fill the former to within one-third of the top. A sufficient quantity of fibrous, moderately sandy peat, is next selected and placed on the top of the drainage, being first broken into various forms and sizes, but none of them less than a walnut; in placing these, care is taken to dispose of each, so as to leave a passage for the escape of water; this is more effectually secured by putting in, as the process of potting goes on, a few pieces of broken pots, say between every layer, more or less, according to the size of the plant; indeed, I find it an excellent plan to continue a connection of broken pots all the way up the centre, to the bottom of the pseudo-bulbs. After the peat becomes level with the pot, the successive external layers are made fast by means of small pegs, varying from four to six inches long, these pegs run through the layers of peat, and thus secure the whole firmly together. At eight inches above the line the plant is placed on the top; the roots are carefully laid out and covered up to the place of the bulbs very carefully with smaller pieces of peat and potsherds, continuing to fasten the peat as before described, until the whole is finished, when it will be a foot or fifteen inches from the top of the pot;—small plants are not potted so high. At each shifting the plant is raised a little higher. When I commence potting a small plant it is not raised more than three or four inches at first, but as it grows larger it is progressively raised in building up as here described with peat: it does not terminate in the shape of a cone, but is carried up nearly square, being merely rounded a little at the top. Unless the plants are very healthy, but very little water is given at the roots, and in winter very little or none, the great desideratum in the cultivation of Orchidaceæ being *to preserve the roots,* which, by over-watering, especially in winter, are almost sure to be destroyed.

"The general temperature of the house ranges from 60 to 85 degrees; in the afternoon, during the growing season, it is shut up early and the paths well watered, and once or twice a week a little water is sprinkled on their heads. I find great advantage in having a tan bed in the house to plunge the plants in, the heat from the tan circulates through the peat and potsherds, and causes the plant to grow with great luxuriance. It might be objected to this method of growing Orchidaceæ, that wood-lice would damage the plants; I have followed this plan for two years, and do not know an instance of damage by them; indeed, the tan is too moist to harbour any kind of insects. In order to make this account as intelligible as I can, I will detail the manner in which a young plant was treated:—On the 20th of May last year I received a very small damaged plant of a new Stanhopea; I allowed it to get perfectly dry, it was then potted, and placed in a strong bottom heat, with a strong heat above; the plant began to grow in about a fortnight, and at the end of July had perfected a small bulb; the plant was then kept dry about a fortnight, and was again placed in a strong bottom heat, and in a temperature never lower than 70 degrees, but often amounting in the day to from 90 to 100. By the end of September it had perfected a second bulb, considerably larger than the first. The plant was again dried on a hot flue for a fortnight, and then removed into a larger pot, and elevated a little above the surface; it was again replunged into a strong bottom heat, and, by the end of December, had perfected two more bulbs, making four since its commencement. I should here observe that the plant had but one bulb when I received it;—the plant was now dried for a month, then re-potted, and placed, as before, in a strong heat; about the first week in April the plant had made two more perfect bulbs, the process of drying was again gone through, and the plant replaced in strong heat;—it has on it now, August 31, nine bulbs, made in a short space of fifteen months. I expect to have the plant in a state for flowering next season. This plant was cultivated with a number of other small ones, in a small house that could be kept very hot.

"I cannot conclude this statement better than by recommending those who wish to grow Terrestrial Orchidaceæ well, to attend to the following brief rules, in applying the four great elements of vegetable life, viz. air, light, heat, and water.

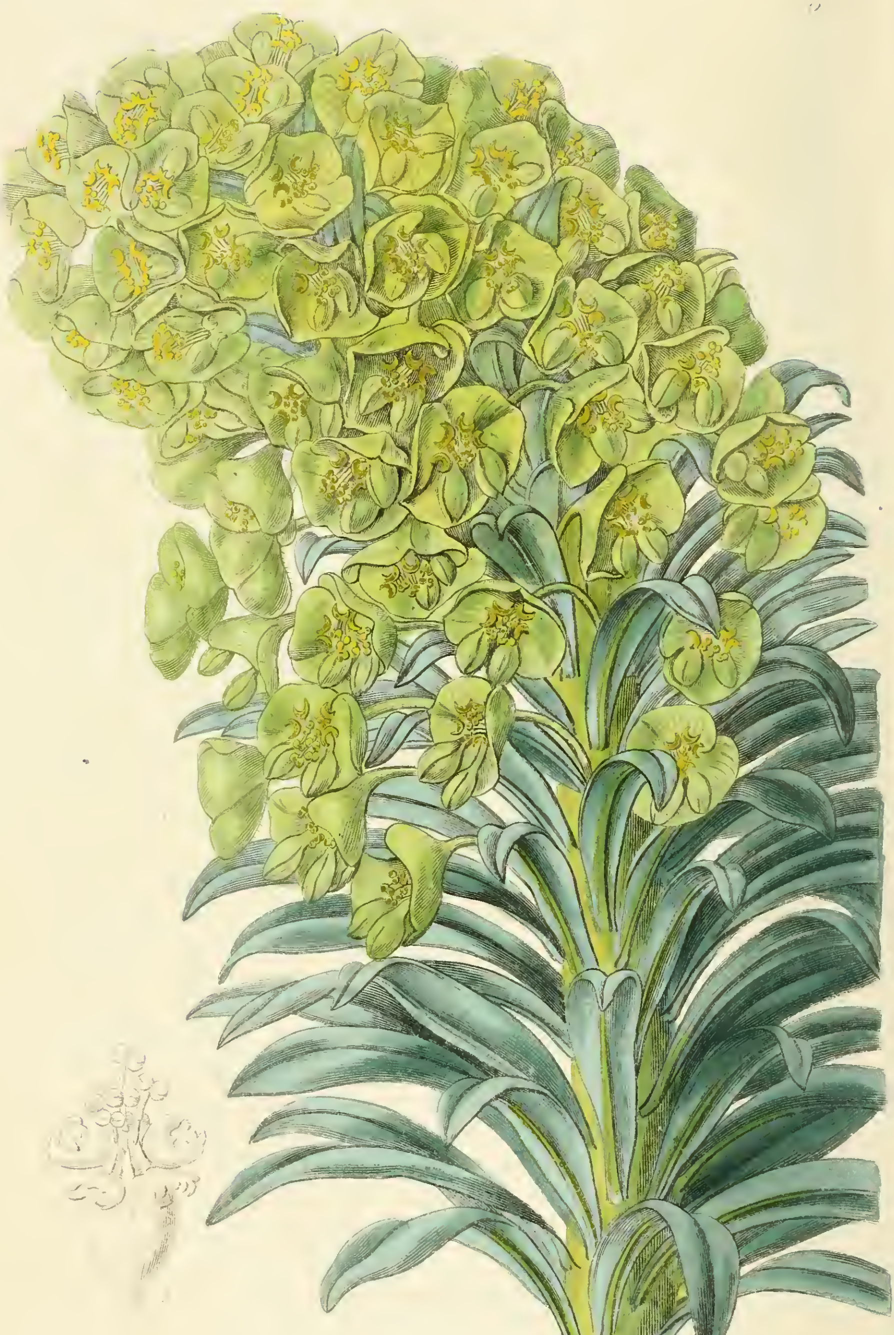
"*Air.*—Terrestrial Orchidaceæ should never have a great volume of external air admitted at once, however fine the weather may be; to prevent the house becoming too hot, a thick canvas shading should be covered over it during sunshine.

"*Light.*—The best aspect for an Orchidaceous-house is due south, and the house should be made to admit as much light as possible. In summer a thick canvas is always put on the house to prevent the bright sun damaging the plants. In winter every ray of light is advantageous to the plants.

"*Heat.*—During the growing season, Orchidaceæ require a moderately moist heat, varying from 65 to 85 degrees; in the dormant season from 60 to 75 is quite sufficient; in the season of rest the house should be kept dry.

"*Water.*—With this element more damage is done than by all the others put together. Orchidaceæ in pots should be sparingly watered in the growing season; in the dormant state little or no water should be given. The secret of growing these plants is to take care *never* to kill the old roots; when too much water is given while the plants are not in a growing state, almost all the old roots invariably perish.

"N. B. The brief account here given refers entirely to plants potted in peat soil; those grown in moss and on bits of wood require quite a different treatment."



* EUPHŌRBĬĂ Venĕtă.

Venetian Euphorbia.

MONŒCIA *MONANDRIA.*

Nat. ord. EUPHORBIACEÆ.
EUPHORBIA. Bot. Reg. vol. 3. *fol.* 190.

E. *veneta;* suffruticosa, foliis lineari-lanceolatis acutis basi angustatis integerrimis pubescentibus, ramis florigeris axillaribus terminalibusque 1-3-cephalis, bracteis connatis rotundatis mucronatis pedunculoque tomentosis, glandulis involucri pallidis lunatis inæqualiter dentatis, ovariis lanatis.
E. veneta. *Willd. enum. p.* 507.
E. characias var. *Röper euphorb. germ.* 68. *Rchb. fl. excurs. no.* 4800.

A fine half-shrubby ever-green plant, inhabiting not only the vicinity of Venice, but the country about Nice and Genoa, Dalmatia, Friuli, and elsewhere in the same part of Europe. It is usually considered a variety of E. Characias, but it differs in the glands of the involucre being yellow and toothed, not chocolate brown and entire, and in the inflorescence being much more leafy and compact; and these differences are not altered by cultivation.

The specimens from which the drawing was made, were communicated by the Hon. W. F. Strangways, from his garden at Abbotsbury.

It is a rather hardy trailing perennial plant, growing from one to two feet high, in any strong stiff soil and dry situation, particularly well adapted for rock-work, along with *Sedums* and similar plants, never suffering in the driest parts of summer, but very impatient of much wet in winter.

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* So called after Euphorbus, the physician of Juba, king of Mauritania.

It flowers during a great part of summer if in a dry situation, and is of ready culture, for the plants when once established produce numerous under-ground shoots, which rise to the surface during summer, and if separated close to the old plant in the autumn, will make young ones in a short time.

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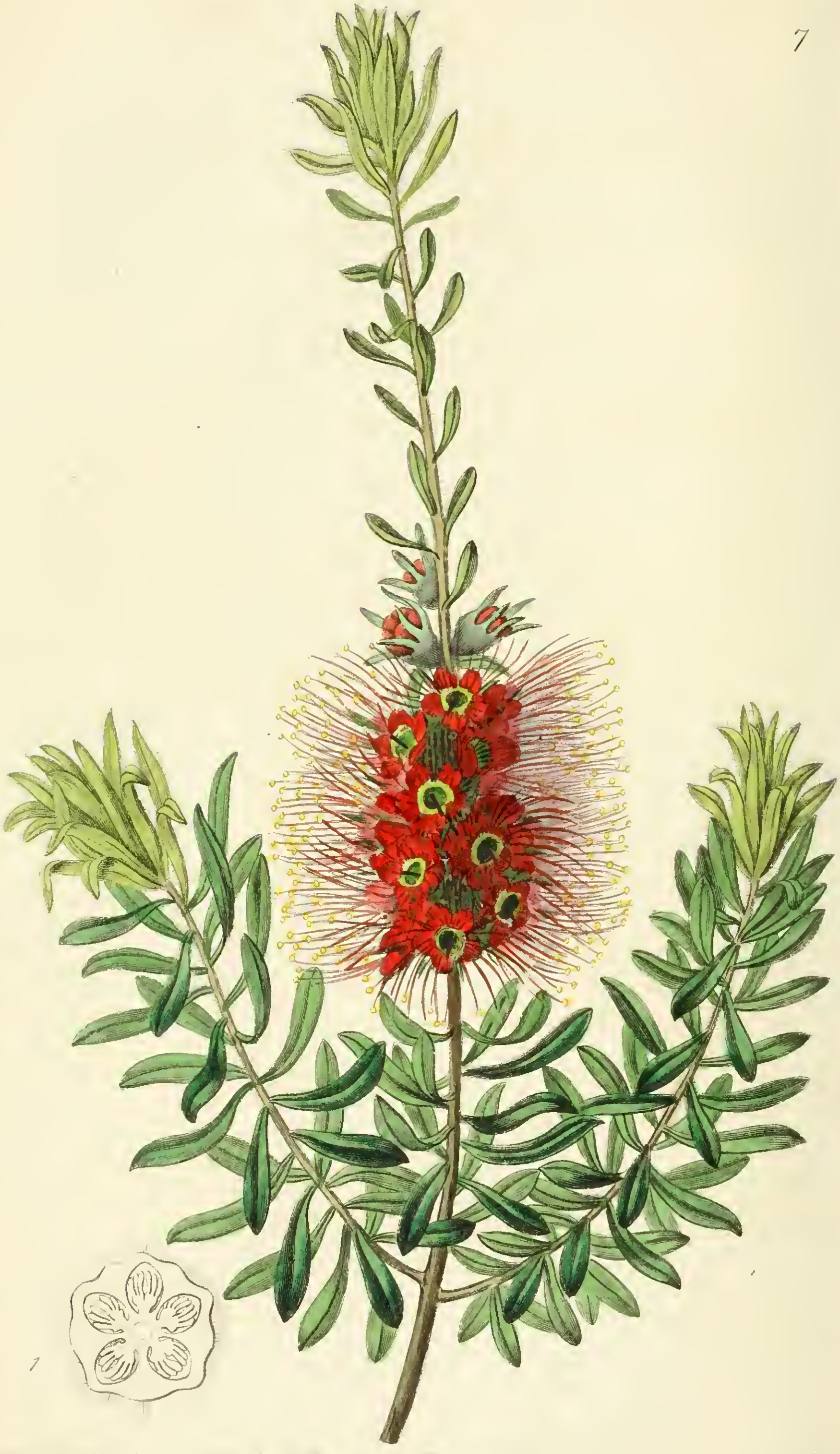

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* CALLISTĒMŎN mīcrŏstāchy̆ŭm.

Small-spiked Callistemon.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. MYRTACEÆ.
CALLISTEMON. Bot. Reg. vol. 5. *fol.* 393.

C. *microstachyum ;* foliis lineari-spathulatis obtusis patentissimis margine albo-ciliatis, calycibus pubescentibus, staminibus petalisque puniceis.

Ramuli *patentim villosi.* Folia *juniora sericea, adulta depilata, margine pubescentia, uninervia, obtusa, venis lateralibus inconspicuis.* Flores *sessiles secus ramos, spicam parvam constituentes.* Calyx *pubescens ; foliolis angustè triangularibus acutis petalis longioribus.* Petala *subrotunda, concava, lætissimè punicea.* Stamina *longissima, ejusdem coloris, antheris luteis.*

A New Holland plant, which flowered for the first time in Europe in the garden of William Harrison, Esq., of Cheshunt, in March, 1837, at which time it was exhibited at one of the meetings of the Horticultural Society in Regent Street, where it gained a medal.

It is remarkably striking on account of the clear vivid crimson of its flowers, which are certainly the most brilliant in this brilliant genus; so that although the spikes are much smaller than in some other species, the general effect of the blossoms is not equalled.

The species is abundantly distinguished by its spreading, narrow, spathulate, pliable, obtuse leaves, and small spikes of flowers. Fig. 1. represents a transverse section of the ovary.

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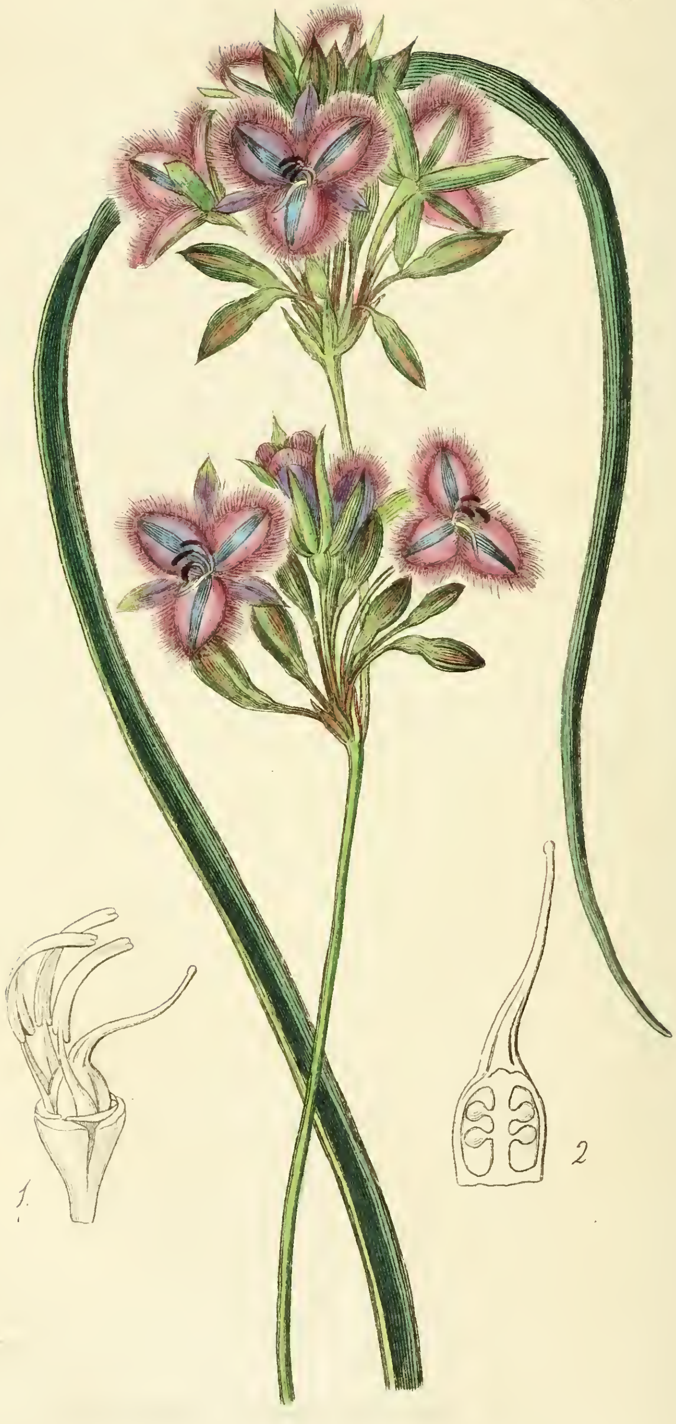
* Καλὸς beautiful, and στημον, in allusion to the rich vivid colours of the stamens.

The cuttings by which this plant is propagated should be the points of young shoots, and if possible should be taken from young plants. This is of considerable importance, because it not unfrequently happens that the failure in striking cuttings is owing to having taken them off old plants. The best season for propagation is the spring; the young plants then become rooted before the following winter. They will strike root best in silver sand. The soil should be good peat, and if it is not naturally mixed with sand, a little of this must be added. The pots should be well drained in order to carry off superfluous water. It will be grown to the greatest perfection in a good green-house; but it would probably succeed if planted against a wall in the milder parts of the country, provided it were protected from all wet and the most severe frost during winter.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* THYSĂNŌTUS prolīfĕrŭs.

Proliferous Thysanotus.

TRI-HEXANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ.
THYSANOTUS. Bot. Reg. vol. 8. *fol.* 655.

T. *proliferus ;* foliis linearibus longissimis canaliculatis glabris, scapo prolifero, umbellis multifloris pedicellorum articulo inferiore bracteis longiore, staminibus tribus styloque decurvis.

Caulis *erectus* 2-*pedalis basi foliosus.* Folia *subglauca, glaberrimas scapo longiora.* Umbellæ 2-3, *una supra alteram, apice scapi, sessiles ; bracteis multis linearibus acuminatis margine scariosis.* Sepala *linearia, acuminata, herbacea ; petala oblonga, violacea margine plumosa, lineâ mediâ cœrulescente.* Stamina 3, *petalis opposita, æqualia, atropurpurea, deorsùm arcuata.* Stylus *albus.* Ovarium 3-*loculare, loculis dispermis.*

Another Swan River plant, also raised in the garden of Robert Mangles, Esq. of Sunning Hill, where it is cultivated with great success. If not very showy, the extremely beautiful fringe of the petals renders this a most attractive plant.

It is much to be regretted that the many beautiful species of this genus, to be found in New Holland, should be unknown in our gardens, for neither the size nor the brightness of the petals in the species now figured, are at all to be compared with those of several others. They have from time to time been introduced, but they have always been speedily lost after their importation.

A green-house perennial, growing from twelve to eighteen inches high, and requiring a strong rich loamy soil. It may be grown in pots or planted in a pit kept dry and well protected from frost during winter, for the least frost or wet destroys the roots. If the plants are grown in pots they should be re-potted about the beginning of March, and placed in a warm part of the green-house, not giving them much water at first; they will flower about August, after which they should be kept rather dry (not entirely dry, but watered very sparingly during winter), and placed in a cool part of the green-house to rest. The seeds should be sown when ripe, in a mixture of loam, peat, and a small portion of silver-sand, and raised in the green-house.

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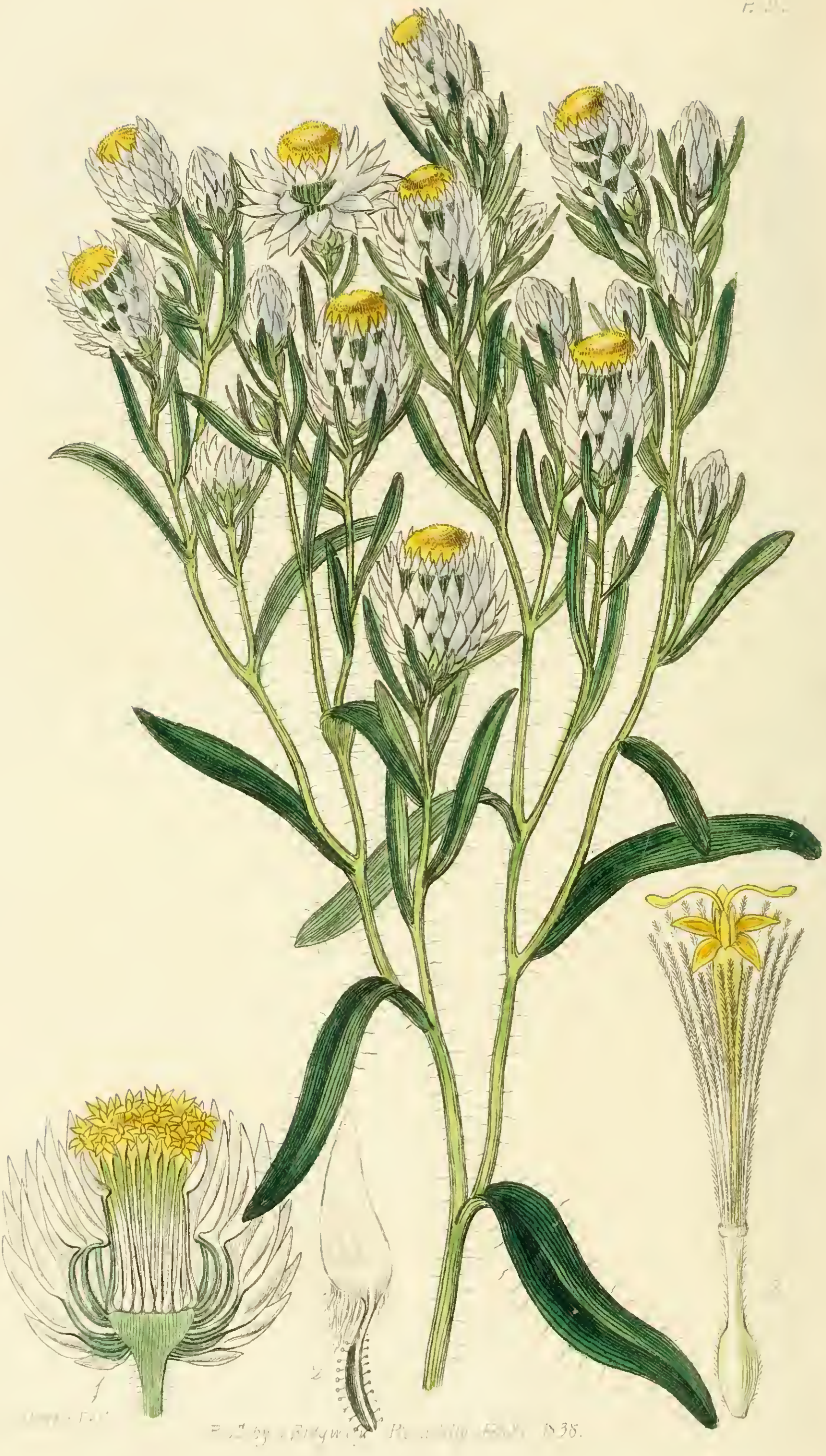
* Θυσανωτὸς fringed, in allusion to the margin of the petals.



Drake fec.

Pub. by J. Ridgway Piccadilly Feb. 1838.

* MŌRNĂ nīvĕă.

Snow-white Morna.

SYNGENESIA *POLYGAMIA ÆQUALIS.*

Nat. ord. Asteraceæ or Compositæ.
MORNA. *Bot. Reg. vol.* 23. *t.* 1941.

M. *nivea ;* caule patentim piloso corymboso basi sublanato, foliis linearibus obtusis acutisque, foliolis involucri candidis integerrimis: laminâ intermediorum basi lanatâ stipite glanduloso.

Herba *annua erecta, bipedalis, caule corymboso sulcato pilis laxis patentibus articulatis torulosis intricatis parcè tecto, basi quasi lanato.* Folia *linearia, apice obtusa, aut acuta, quasi arachnoidea, margine pilis patentibus ciliata.* Capitula *terminalia, corymbosa, candidissima, glabra; foliolis omnibus stipitatis, exterioribus scariosis subdiaphanis, interioribus opacis albis; stipite glanduloso apice sub laminâ ovatâ lanato. Setæ* pappi *æquilongæ, scabræ, versus apicem pilosæ.* Ovarium *longè rostratum.*

Another annual flower raised from Swan River seeds in the garden of Robert Mangles, Esq., of Sunning Hill. It differs from Morna nitida not only in the scales of the flower-heads being white instead of yellow, but also in their being quite entire. It approaches near to Leptorhynchus suaveolens of Mr. Bentham, but I perceived nothing in this plant that could be called sweet-scented, and it does not altogether agree with his description.

What renders these beautiful species of Morna the more interesting is the unfading brightness of their flowers, which will retain their shape and colour for years if carefully prepared, and thus form a charming addition to the everlasting flowers already known.

The plant is a half-hardy annual, growing about eighteen inches high, and flowering freely from May to the end of

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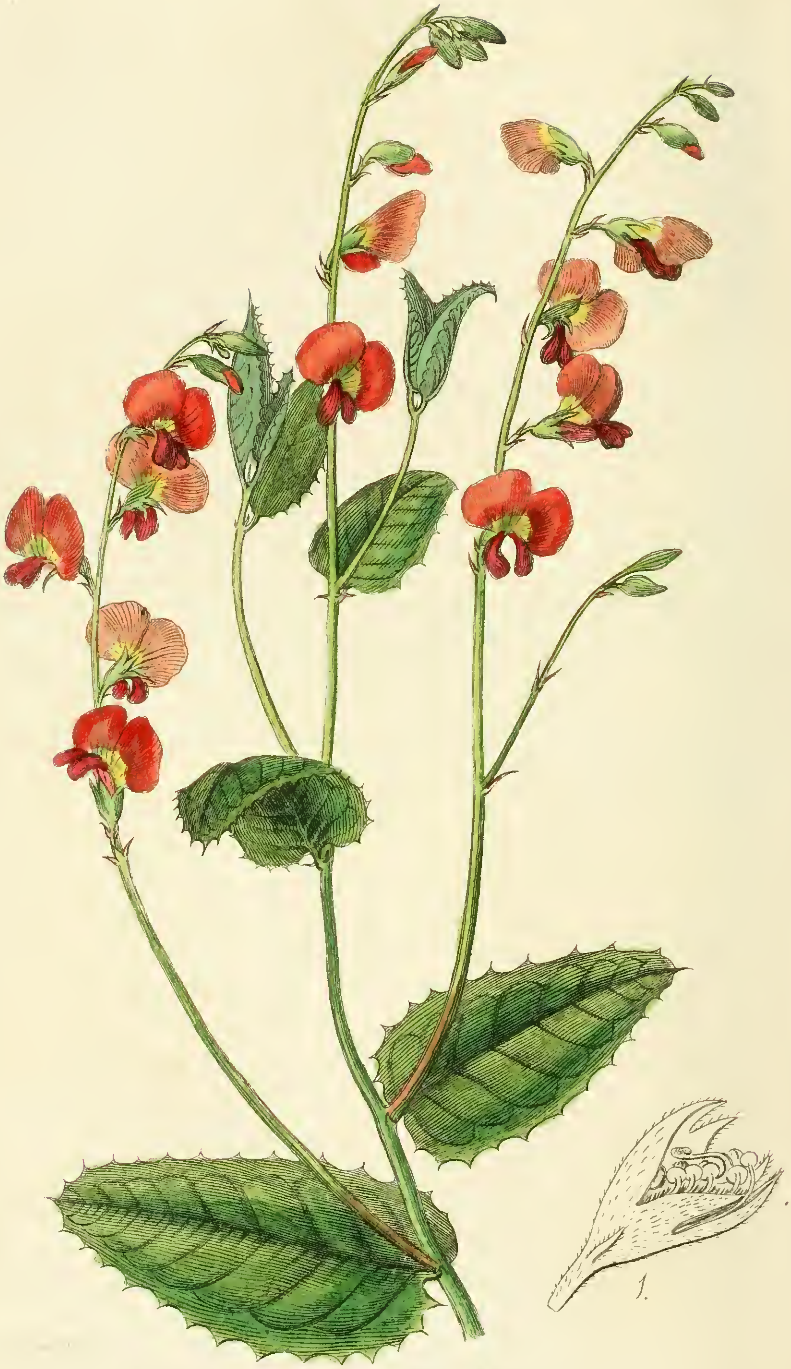
* See Bot. Reg. fol. 1941.

August in the green-house, if sown at *two* different seasons. The first sowing should take place about the beginning of September—the second about the middle of February or beginning of March; the first crop of plants flowering in May and June, the other in the autumn. The seeds should be sown in pots, and placed in the green-house, in a mixture of loam, sandy peat, and leaf-mould; the young plants should be potted off when rather small—for if allowed to remain long in the seed pots they get stunted—into sixty pots, putting two plants into each pot close to the side, shifting them into larger pots as they require it, always keeping them near the glass in a dry airy part of the green-house. The plants blossom in the greatest perfection in the green-house in summer, but will grow and flower tolerably well if planted in the open border, not however earlier than the end of May, for a slight frost is fatal to them; in the latter situation they are most likely to produce seeds. When grown in the green-house they require particular attention, as too much or too little watering will in a few hours destroy the healthiest plants; particular care should therefore be taken to drain the pots carefully at each shifting, and not to give too great a shift at any one time.

P. 126



* CHORŌZĔMĂ cordātum.

Mr. Mangles's Chorozema.

DECANDRIA *MONOGYNIA.*

Nat. ord. Fabaceæ, § Papilionaceæ.
CHOROZEMA. *Bot. Reg. vol.* 12. *fol.* 986.

§ 1. *Euchorozema,* Bentham legum. comment. p. 71.

C. *cordatum;* foliis subsessilibus cordatis ovato-oblongis obtusis æqualiter spinuloso-dentatis glabris, racemis terminalibus axillaribusque laxis nutantibus paucifloris, calycis pubescentis dentibus tubo æqualibus.

Frutex *debilis, erectus, glaber, læte viridis, nitens.* Rami *filiformes, patentes, firmi.* Folia *sæpè internodiis breviora, reticulata, pilis quibusdam inconspicuis in petiolum costam stipulasque subulatas.* Racemi *terminales, aut, foliis orbati quasi axillares.* Bracteæ *subulatæ, pedicello breviores; bracteolæ minimæ, setaceæ, oppositæ, supra medium pedicelli.* Calycis *labium superius bidentatum, inferius tripartitum.* Vexillum *bilobum, miniatum, basi luteo maculatum: alæ et carina purpureæ.*

A pretty new species of this handsome genus, native of the Swan River Colony, and raised in the garden of Robert Mangles, Esq., of Sunning Hill, by whom it has been liberally distributed, and to whom I am indebted for specimens. It is very distinct from all the species hitherto known. Mr. Mangles tells me it is the freest grower of the genus. The plant when only twelve months old was two feet and a half high, and although it does not seem strong enough to support itself, yet it clings to nothing for aid; he thinks it will be an abundant bloomer. The drawing was made in April, 1837.

The plant is easily propagated by cuttings, which may be taken off at any season of the year; but the best time is early in spring. The soft newly formed parts of the plant should be used for this purpose, as they are found to strike root more readily than older wood; they should be inserted in silver sand and covered with a bell-glass. A little artificial heat will be found useful if the cuttings are put in in the early part of the spring, but if in summer this will be unnecessary. They will root in a few days, and should then be potted in peat soil mixed with a little sand. If it be bright sun-shine after they are potted, a slight shade must be thrown over the glass for a day or two until they are better established. Afterwards they must be removed to the green-house, where they must have plenty of light and air, and be regularly shifted from small to larger pots as their roots require it. By giving them sufficient room, and being careful in watering, &c. they will soon form handsome specimens.

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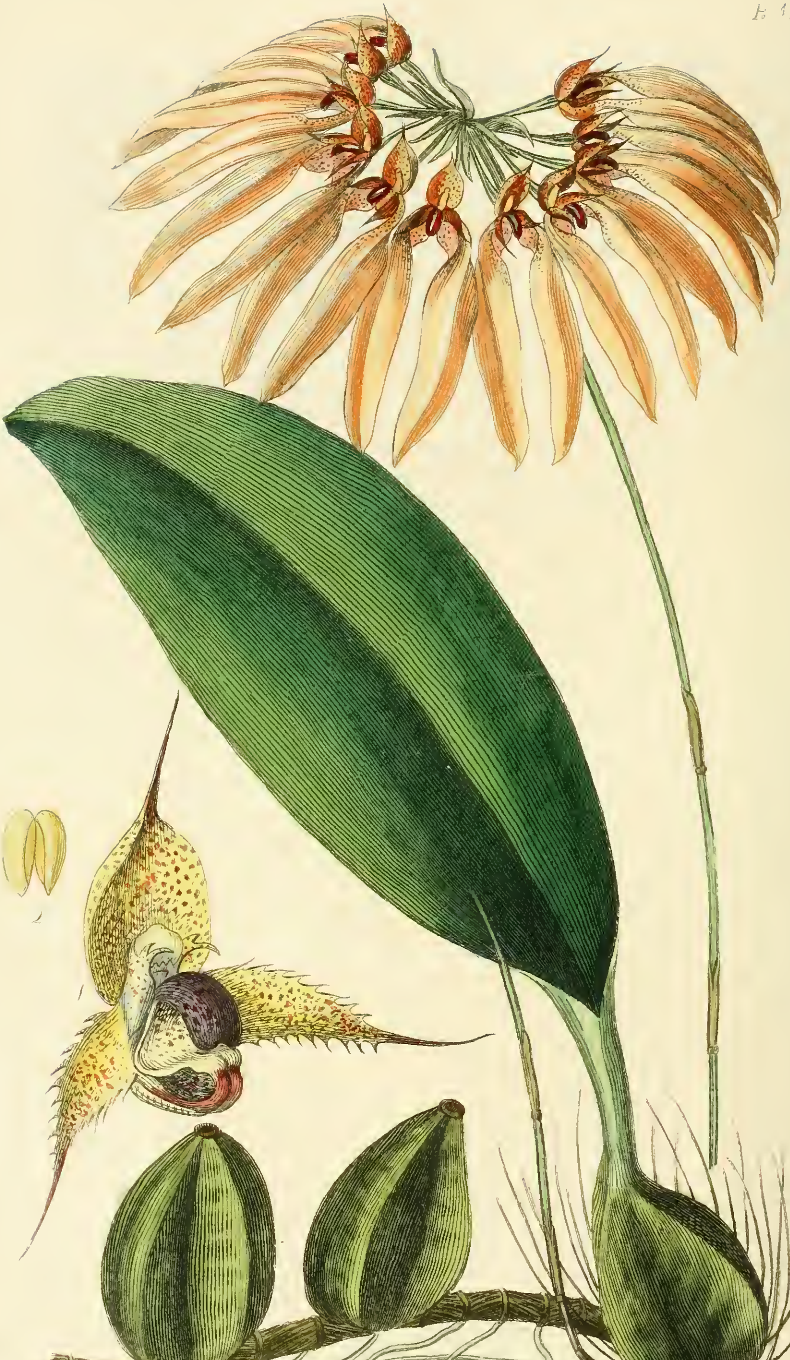
* See Bot. Reg. fol. 1513.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* CIRRHŎPĒTĂLUM Thouārsĭĭ.

Insular Cirrhopetalum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § MALAXIDEÆ.

CIRRHOPETALUM, *Lindl.* *Sepala* ringentia; lateralia acuminata, longissima, valdè obliqua, basi productæ columnæ adnata, supremo multò longiora. *Petala* nana apiculata. *Labellum* integrum, cum basi columnæ articulatum. *Columna* minima, basi longè producta, apice bicornis. *Anthera* bilocularis. Pollinia 4, quorum duo interiora multo minora, per paria connata.——Herbæ epiphytæ, rhizomate repente, pseudobulbos monophyllos gerente. Folia coriacea, avenia. Flores densè racemosi, nunc radiati, in apice scapi radicalis. *Gen. & sp. orch. p.* 58, quibusdam mutatis.

C. *Thouarsii;* petalis ciliatis sepaloque supremo aristatis, foliis oblongis obtusis emarginatis scapo brevioribus. *Lindl. l. c. cum. synonymis.*

This very curious plant is one of the most extensively diffused of all epiphytal Orchidaceæ. I have specimens gathered in the Society Islands by Mr. Mathews, Reinwardt found it in Java, Thouars in the isles of France and Madagascar, and Mr. Cumming has lately sent it from Manilla to Messrs. Loddiges, with whom it flowered last July.

Nothing can be more singular than the long strap-shaped sepals growing from one side of the flowers, and almost bearing them down with their weight; they offer a singular instance of the unequal force with which the phenomena of developement are exerted in one and the same flower. The petals, represented at fig. 1. of the magnified dissections, are very small, yellow, spotted finely with red, bordered by bristle pointed teeth, and terminated in a long awl-shaped point.

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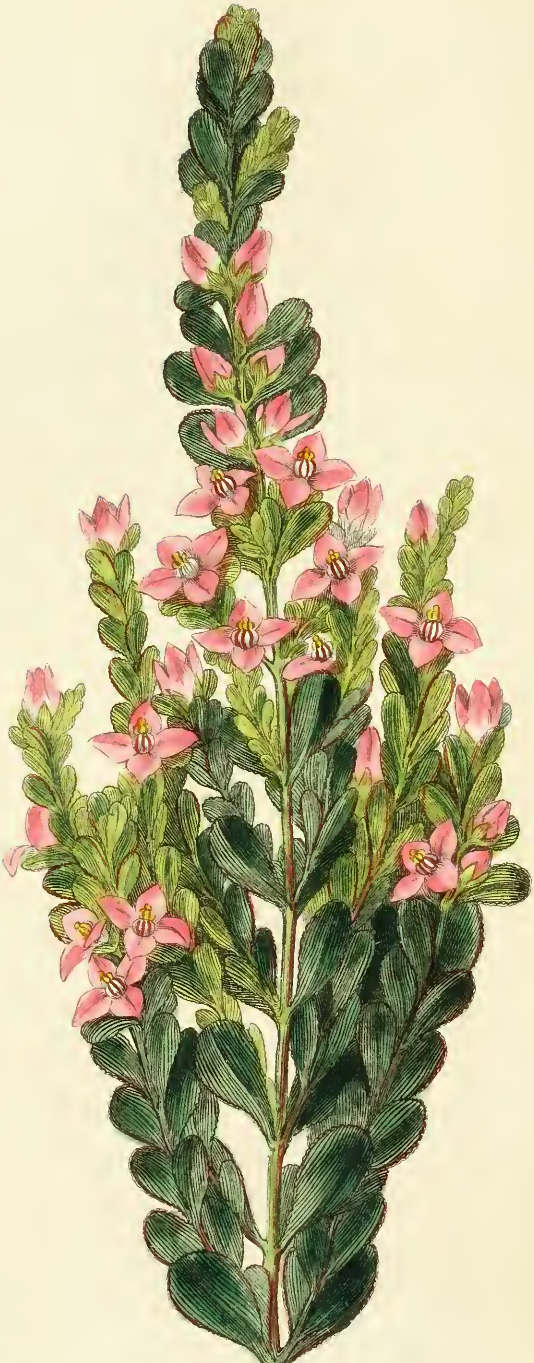
* From κιῤῥος tawny, and πεταλον, in allusion to the prevailing colour of the flowers.

It is a very pretty little species and well worth cultivation, for if in good health it will bear a good many such umbels as are here represented upon the same plant. Like most other Orchidaceæ it requires to be grown in a moist stove. The soil best suited to its growth is rough pieces of decayed peat, amongst which broken pieces of pots and bricks may be mixed with advantage. A quantity of drainage should always be put in the bottom of the pots, and very little water given in winter when the sun's rays are weak, and the weather generally cloudy. The rhizoma of this plant elongates very much, and is in a growing state always at its extremity, leaving the parts formed previously in a state of inaction ; on this account it is necessary at every potting to keep the active part nearest the side of the pot which it grows away from. It may easily be propagated by taking off the pseudo-bulbs, with a portion of the rhizoma adhering to them on each side ; although inactive when upon the old plant, they will push when made to depend upon their own resources.



* BŌRṒNĬA crenulā́tă.

Crenated Boronia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. Rutaceæ.
BORONIA. *Bot. Reg. vol.* 12. *fol.* 1000.

B. *crenulata ;* glabra, foliis simplicibus obovatis crenulatis marginatis internodiorum longitudine basi cuneatis integerrimis, floribus solitariis axillaribus terminalibusque, sepalis ovatis mucronatis ciliatis, filamentis obtusis apice glandulosis.

B. crenulata. *Smith trans. soc. linn.* 8. 284. *DC. prodr.* 1. 721.

A native of King George's Sound, where it was found by Mr. Menzies so long since as during the voyage of Vancouver, and from specimens then obtained it was first described by Sir James Smith. It is however only within a short time that it has made its appearance in our gardens; the plant from which the accompanying drawing was taken flowered with Messrs. Loddiges last June.

I think that this is, upon the whole, the handsomest of the genus, forming a neat deep green bush, most profusely clothed with bright rosy red flowers.

Such plants as this succeed best in a light airy part of the green-house, not too much exposed to a bright sun in summer. They may be multiplied either by cuttings or layers. The cuttings may be taken from the plant about April or May, or any time when it is in a growing state. The points of young shoots with a small piece of the half-ripened wood at their base, are the best for this purpose.

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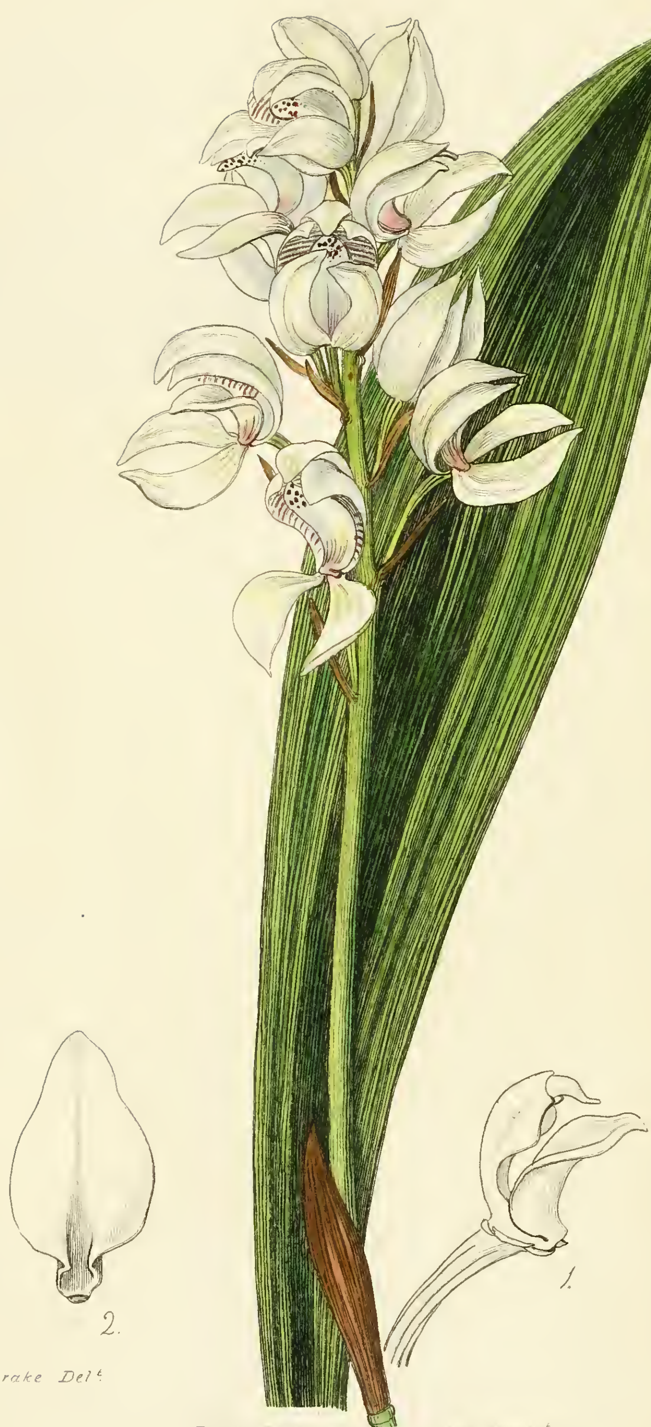
* Named after Francis Borone, a faithful servant of the late Professor Afzelius, who accompanied his master to Sierra Leone, where he died.

At the suggestion of a classical friend, it is intended to make a slight alteration in the manner proposed, at fol. 1 of the present volume, for accenting generic names. In future the real quantity will be marked, and an accent will be placed in addition over the accented syllable.

March, 1838.

It grows luxuriantly in a sandy peat. The pots should be well drained at the bottom in order to prevent its suffering from too much water being given to it. It should be regularly shifted from small pots to those of a larger size, not giving it too much at once; and by attention to watering, and staking, it will soon form a handsome bush.

F. 13.



Mrs. Drake Del.t

Pub. by J. Ridgway Piccadilly Mar. 1. 1838.

* GOVḖNĬĂ lilĭā́cĕă.

Lily-flowered Govenia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
GOVENIA. *Bot. Reg. vol.* 21. *fol.* 1795.

G. *liliacea;* labello ovato basi imâ cucullato, spicâ oblongâ, scapo univaginato, bracteis oblongis cucullatis, foliis obovato-lanceolatis plicatis radicalibus scapo brevioribus, radice tuberosâ.
G. liliacea. *Bot. Reg.* 21. *fol.* 1795 *in textu.*
Maxillaria liliacea. *La Llave et Lexarza nov. veg. descr.* 12.

A small tuberous plant, with a stem about a foot high, imported from Mexico by George Barker, Esq. of Birmingham, along with a great quantity of still more interesting plants and seeds of all descriptions. It is an Orchidaceous plant, with the habits of a Bletia, flowering in the month of July. Its flower-stem is hardly above a foot high, and rises directly from the tuber, to about the length of the plaited leaves. The colour of the flowers is not a good or pure white, but they are delicately streaked upon the petals with lines of rather pale purple.

From G. superba it differs not only in colour, but in the form of the labellum, which is not at all cordate, or channelled along the middle.

The first notice we have of the existence of this species is from Hernandez who, in the Madrid edition of his work, calls it by the many-syllabled name of "Iztactepetzacuxochitl Icohueyo." It was many years afterwards described and named more scientifically by Paul de la Llave and John

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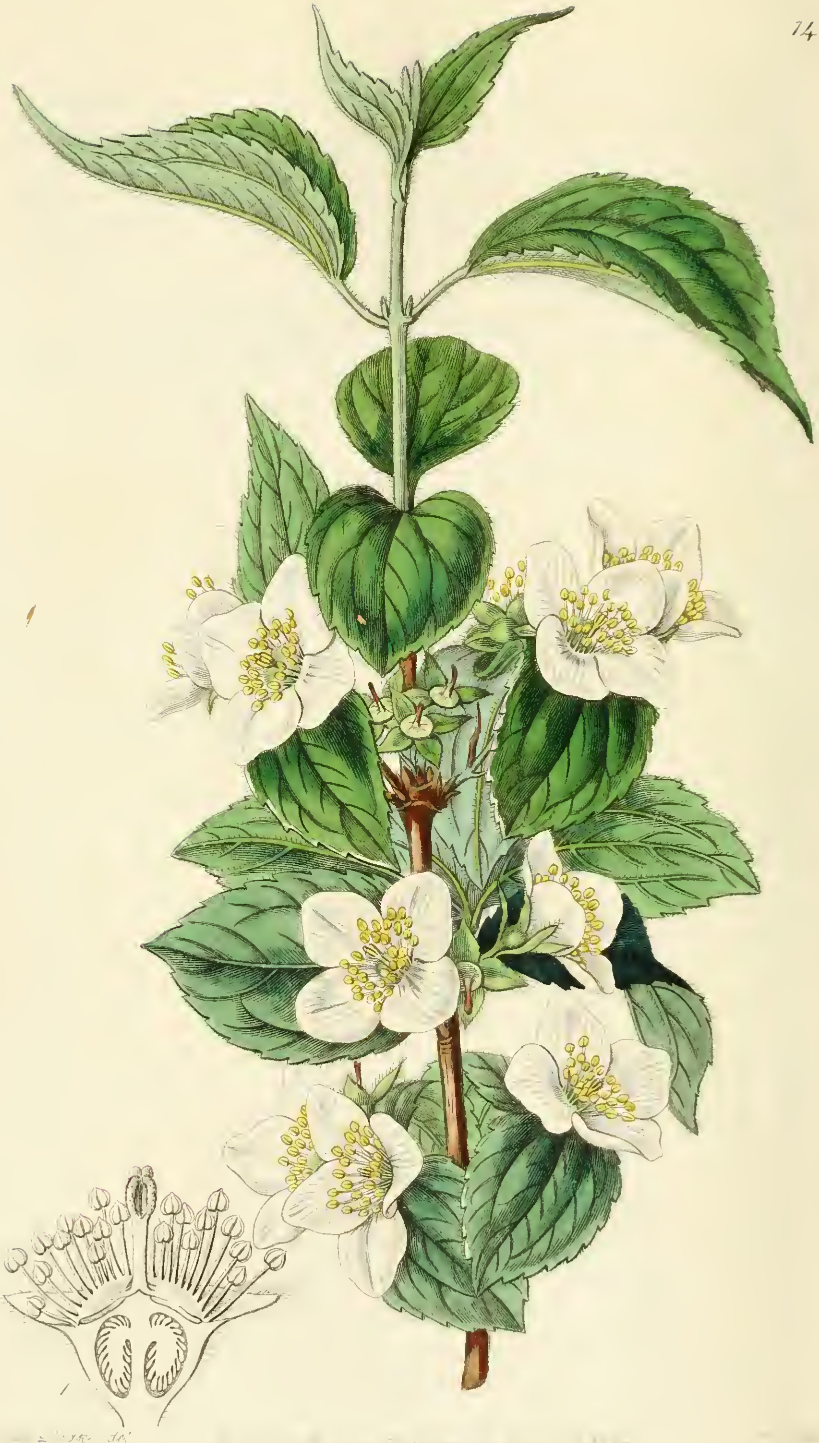
* See Bot. Register, vol. 21. fol. 1795.

Lexarza, in their *Novorum Vegetabilium Descriptiones*, under the title of Maxillaria liliacea. These authors state that it is met with near Valladolid, in Mexico, under the shade of trees or sometimes growing over their roots, and flowering in the summer months; its vernacular name is Azuzena del Monte.

It is at present extremely rare; I have not heard of it in any collection except that of Mr. Barker. It will require the same treatment as Bletias.

14.



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* PHILĂDÉLPHŬS hirsūtŭs.

Hairy Syringa.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. Philadelphaceæ.
PHILADELPHUS. *Bot. Reg. vol.* 7. *fol.* 570.

P. *hirsutus;* foliis oblongo-ovatis acutis dentatis 5-nerviis utrinque hirsutis subtùs albidis, floribus solitariis ternisve, stylis ad apicem concretis stigmatibus indivisis. *DC. prodr.* 3. 206.
P. hirsutus. *Nuttall. gen. amer.* 1. 301. *Loud. arb. britt. p.* 954. *fig.* 678.

A small shrub, not more than three or four feet high, with a few thinly scattered straggling branches. Mr. George Gordon, the under gardener in the Arboretum of the Horticultural Society's garden, who has paid particular attention to this ornamental genus, finds it the smallest of all the species. He describes it in a memorandum in my possession as " a hardy shrub, not injured by the severity of the present winter, growing from three to four feet high in any good soil, and flowering about the middle of July. It strikes freely from cuttings of the young wood about the end of August, under a hand-glass, in a mixture of peat and sand in any shaded situation; the cuttings should remain until the following March or April, when they may be planted in the open border."

It was first discovered by Mr. Thomas Nuttall on the rocky banks of French Broad River, Tennessee, near the warm springs, abundantly, and is correctly described by that writer as having an undivided 4-grooved stigma, by which character it is at once known. This is represented in the accompanying figure (1) which shews that in fact the stigmas are grown together instead of being distinct, as is usual in the genus.

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* See Bot. Reg. vol. 23. fol. 2003.

P. *villosus* and P. *gracilis* are other names under which it is known in the Nurseries. It is exceedingly well adapted for covering rock-work. The flowers are scentless.

Mr. Loudon in his Arboretum Britannicum must have been speaking of some other species, when he ascribes to this plant shoots from six to eight feet long in one season, and conjectures that it will grow twenty feet high. No doubt some plant under the name of P. hirsutus produced such shoots; but it is not safe to trust to garden names in these cases.

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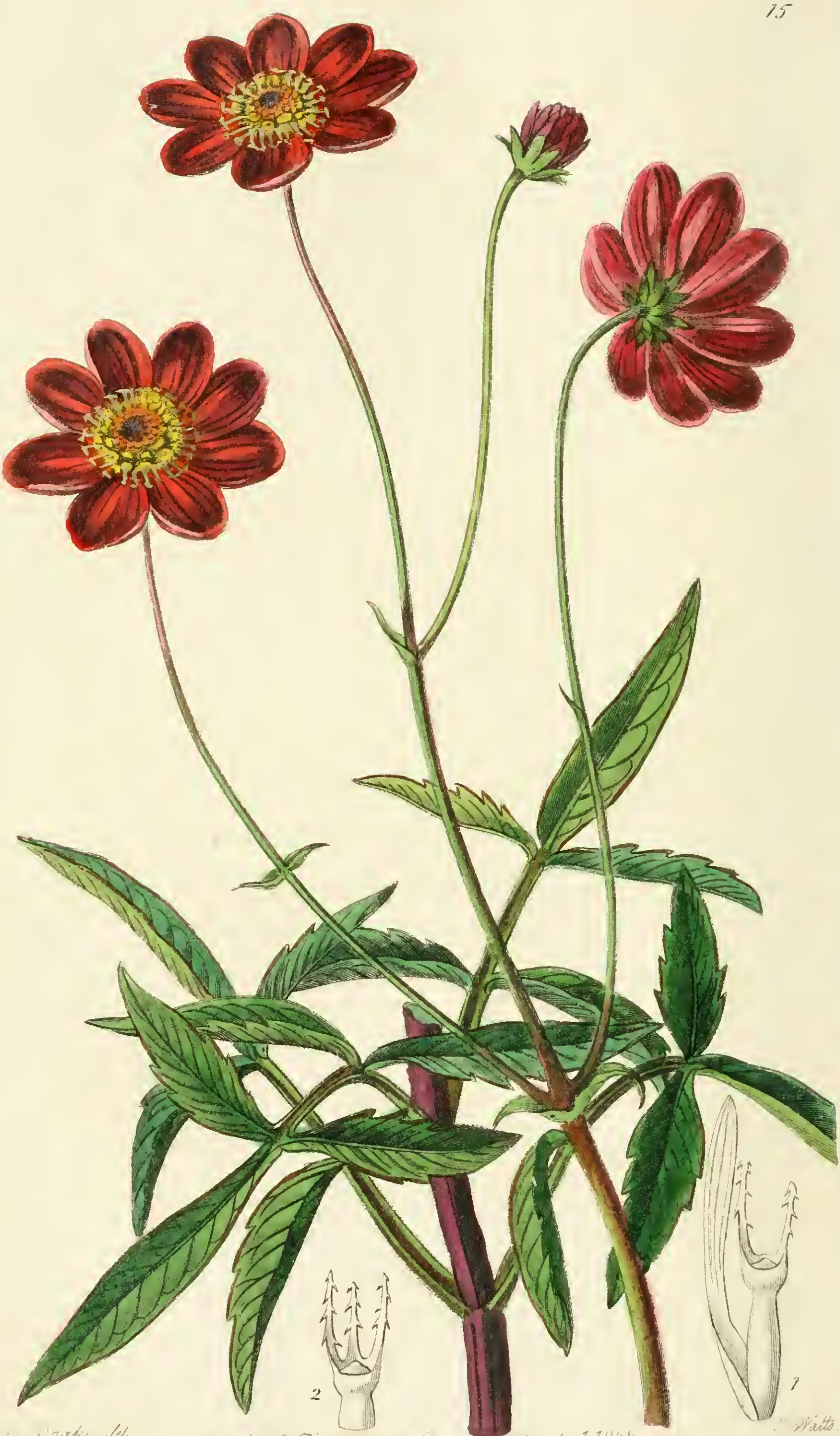

Miss Drake del. Pub by J. Ridgway 169 Piccadilly March 1. 1838 Watts sc.

* CṒSMŬS scabīŏsŏī́des.

Scabious-like Cosmus.

SYNGENESIA *SUPERFLUA.*

Nat. ord. ASTERACEÆ § SENECIONIDEÆ.
COSMUS. Bot. Reg. vol. 23. *fol.* 2007.

C. *scabiosoides ;* caule pubescente, foliis pinnati-partitis subtus hispidulis, lobis bijugis lanceolato-oblongis acutis basi cuneatis apice subserratis, terminali majore, involucri squamis exterioribus lanceolatis acutis brevioribus, acheniis (bi-) triaristatis. *DC. prodr.* 5. 607.
C. scabiosoides. *Humb. Bonpl. & Kunth, nov. gen. amer.* 4. 242.

Originally found by Humboldt and Boupland on the western slope of the mountains of Mechoacan, near Pazcuaro, at the elevation of nearly 7000 feet above the sea. It has also been met with near Tlalpuxahua. The seeds from which the plant now represented was raised were imported from Mexico by George Fr. Dickson, Esq. F.H.S., and presented by that gentleman to the Horticultural Society of London, in whose garden the drawing was made last October.

The genus Cosmus abounds in beautiful species. C. tenuifolius, with large bright rose-coloured flowers, has already been figured in this work; others with bright yellow, pink, or rich purple blossoms, still unknown in gardens, may be soon expected to appear from among the many valuable collections of Mexican seeds now in course of importation to this country. They are more particularly deserving of attention because they will probably become double like the Dahlia.

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* See Bot. Reg. vol. 23. fol. 2007.

This species is a half hardy perennial, with tuberous roots like the common Dahlia; it grows from three to four feet high, and requires the same treatment as that plant. It may be raised from either seeds, cuttings, or divisions of the old roots. The seeds should be sown about the beginning of March on a moderate hot bed, and treated like seedling Dahlias; the old roots should be potted about the end of February and placed in the forcing-house, and the young shoots when about three inches long should be taken off and treated in the same way as the Dahlia. They may be planted in the open border, about the end of May or beginning of June, and will flower from the beginning of August to the end of September, or later if not destroyed by frost. When the flowering is past the roots should be taken up and either potted or packed in a box of dry old tan or mould, and then put in some dry place secure from the frost during winter.

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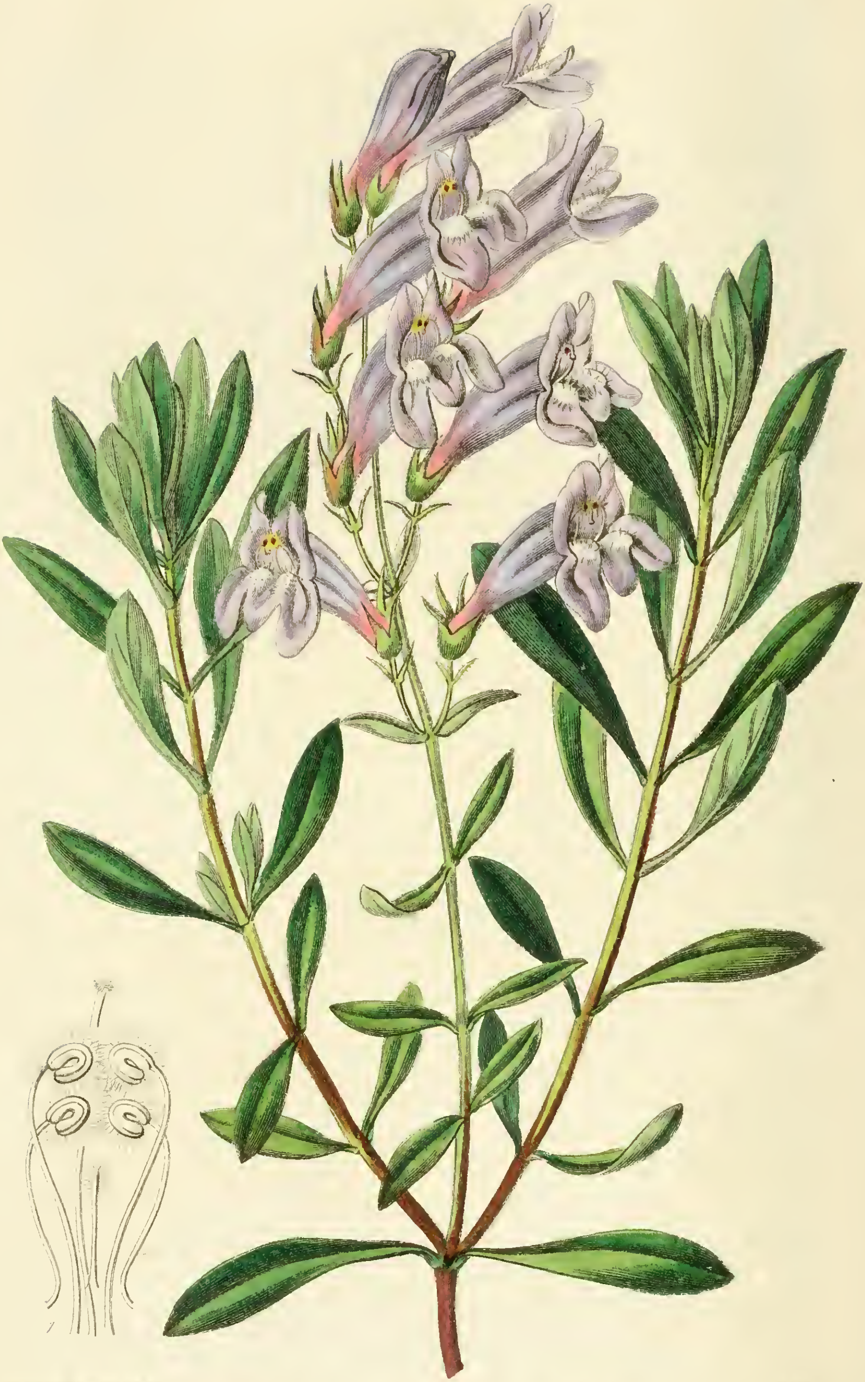

Drake del.

Pub. by J. Ridgway 169 Piccadilly March 1 1838

J. Watts sc.

* PENTSTḖMŌN crassĭfṓlĭŭs.

Thick leaved Pentstemon.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCHROPHULARIACEÆ.
PENTSTEMON. Bot. Reg. vol. 13. *fol.* 1131.

P. *crassifolius;* fruticosus, glaber, foliis obovato-lanceolatis integerrimis coriaceis subtus carinatis, racemis terminalibus paucifloris secundis, rachi hinc pubescente, calycis glabriusculi laciniis ovatis acuminatis striatis, corollâ infundibulari glabrâ, labii superioris laciniis ovatis obtusiusculis, inferioris tripartiti lateralibus ovatis obtusis basi villosis intermediâ abbreviatâ, antheris villosissimis.

Suffrutex; ramis *rigidis, lignosis, divaricatis, glabris; ramulis minutissimè pubescentibus.* Folia *carnosa, coriacea, inferiora obovato-lanceolata, superiora ramorum florigerorum sensìm breviora.* Racemi *simplices, secundi, minutè puberuli; pedicelli apice bibracteolati*; *bracteolis setaceis.* Flores *lilacini,* corollis *unciam longis;* sepala *minutè puberala, imbricata, acuminata.* Stamen *sterile breve, filiforme, apice villosum.* Stylus *glaber.* Capsula *ovata, quadrivalvis, calycis longitudine.*

A native of the North West coast of North America, whence seeds were sent by the late Mr. Douglas to the Horticultural Society of London, in whose garden it was figured in June last. The coriaceous, entire, obovate, somewhat fleshy leaves, distinguish it at once among all the shrubby species.

It is a very handsome, hardy, suffruticose plant, growing about a foot high, and requiring the same treatment as Pentstemon Scouleri. It may either be grown in the peat-border or in any rich garden soil, where it flowers freely about the end of May. Like the other suffruticose species of Pentstemon from the N. W. coast of America, it does not seed

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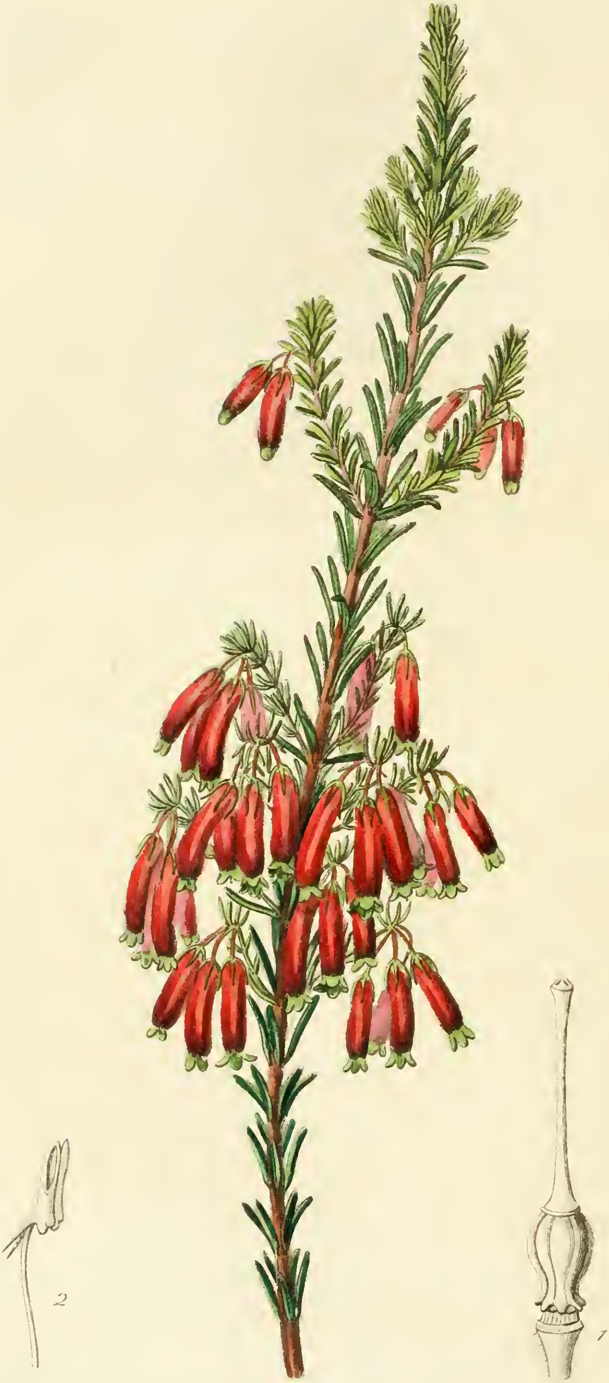
* See Bot. Reg. fol. 1245.

freely, and is therefore chiefly propagated, by layers or cuttings, any time from July to September.

The plant, if in good health, will emit numerous small roots, along the young shoots and stems, and these shoots, if taken off and potted, or laid down and slightly covered with any good rich soil, will soon make strong plants.

Seeds should be sown as soon as they are ripe, in any good rich soil, in pots placed in a cold pit; they will not vegetate before the March following, and will require potting about the end of May. Plants so obtained will not flower before the second year. If the seeds are not sown until the spring they will probably remain dormant until the following March; as indeed is the case with most of the Pentstemons from the N. W. coast of America.



Miss Drake del.   Pub. by J. Ridgway 169 Piccadilly March 1 1838   J. Watts sc.

* ERĪCĂ chlorŏlōmă.

Green-tipped Heath.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ERICACEÆ.
ERICA. *Bot. Reg. vol.* 1. *fol.* 6.

E. *chloroloma* (Intestiniflora); inflorescentia terminali, antheris aristatis, foliis quinis linearibus appressis scabro-pubescentibus, ramis ramulisque pilosis, corollis cylindricis glabris apice constrictis: limbi laciniis erectis rotundatis, ovario glabro.

I am obliged to Mr. John Young, Nurseryman, Taunton, for a specimen of this pretty heath, which flowered in his collection in November 1836, at which time the drawing was made.

It forms an erect and graceful bush, with reddish brown downy branches. The leaves grow in fives, and are nearly erect, in which respect, as well as others, it differs from the E. carinata figured in the Botanical Cabinet, tab. 1071; they are rough, with a short pubescence. The beautiful crimson and green flowers grow in clusters at the ends of the young shoots, or little downy nodding pedicels, which bear in their middle a pair of small narrow bractlets. The calyx is green and leafy, and has four narrow erect obtuse smooth segments. The corolla is six lines long, cylindrical, bright crimson, contracted below the point, which is a clear bright green. The anthers have each a short, smooth awn at the base, and are just enclosed within the tube of the corolla. The ovary is smooth, and produced at the very base into eight short green tubercles.

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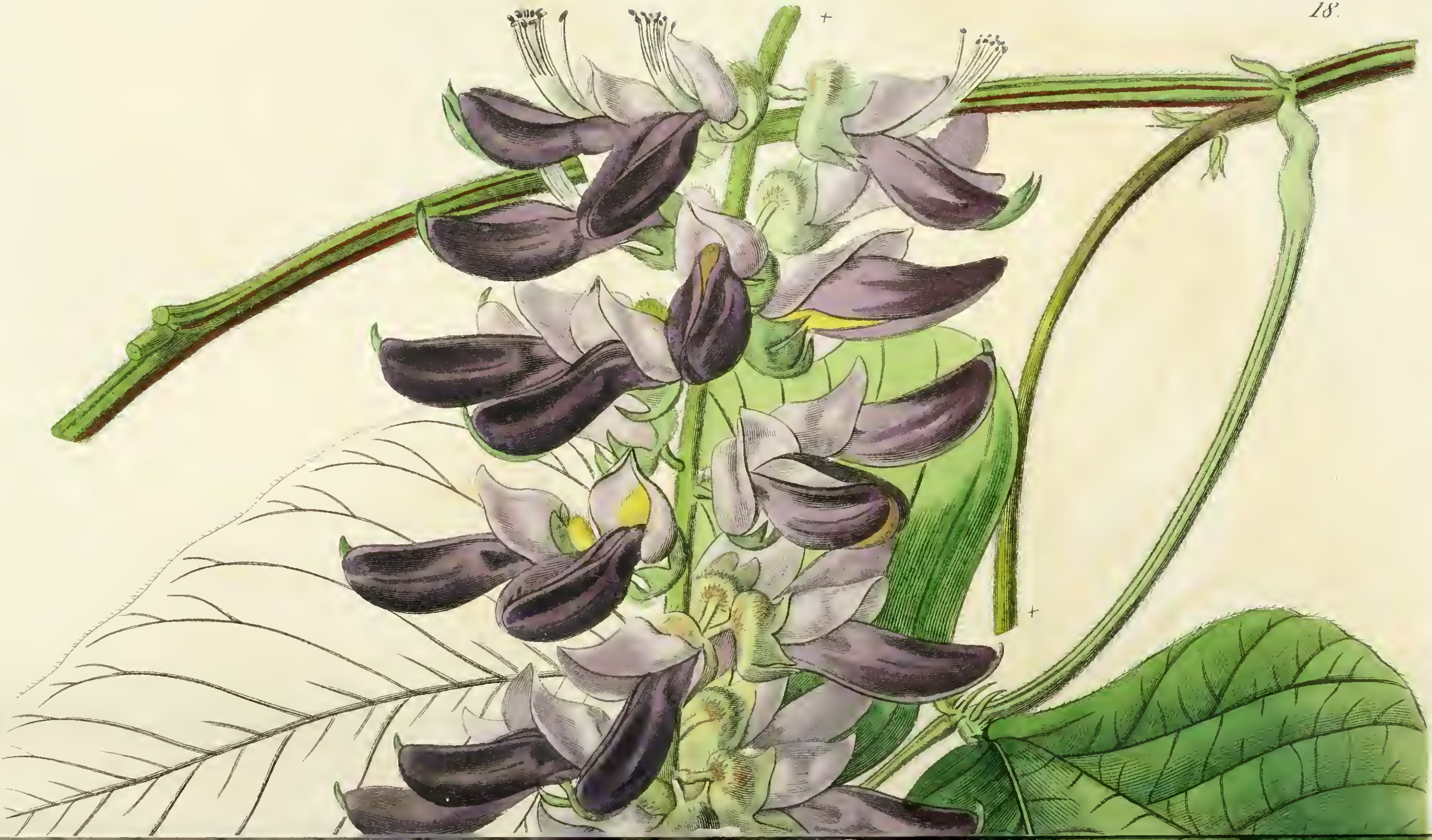
* See Bot. Reg. fol. 1698.

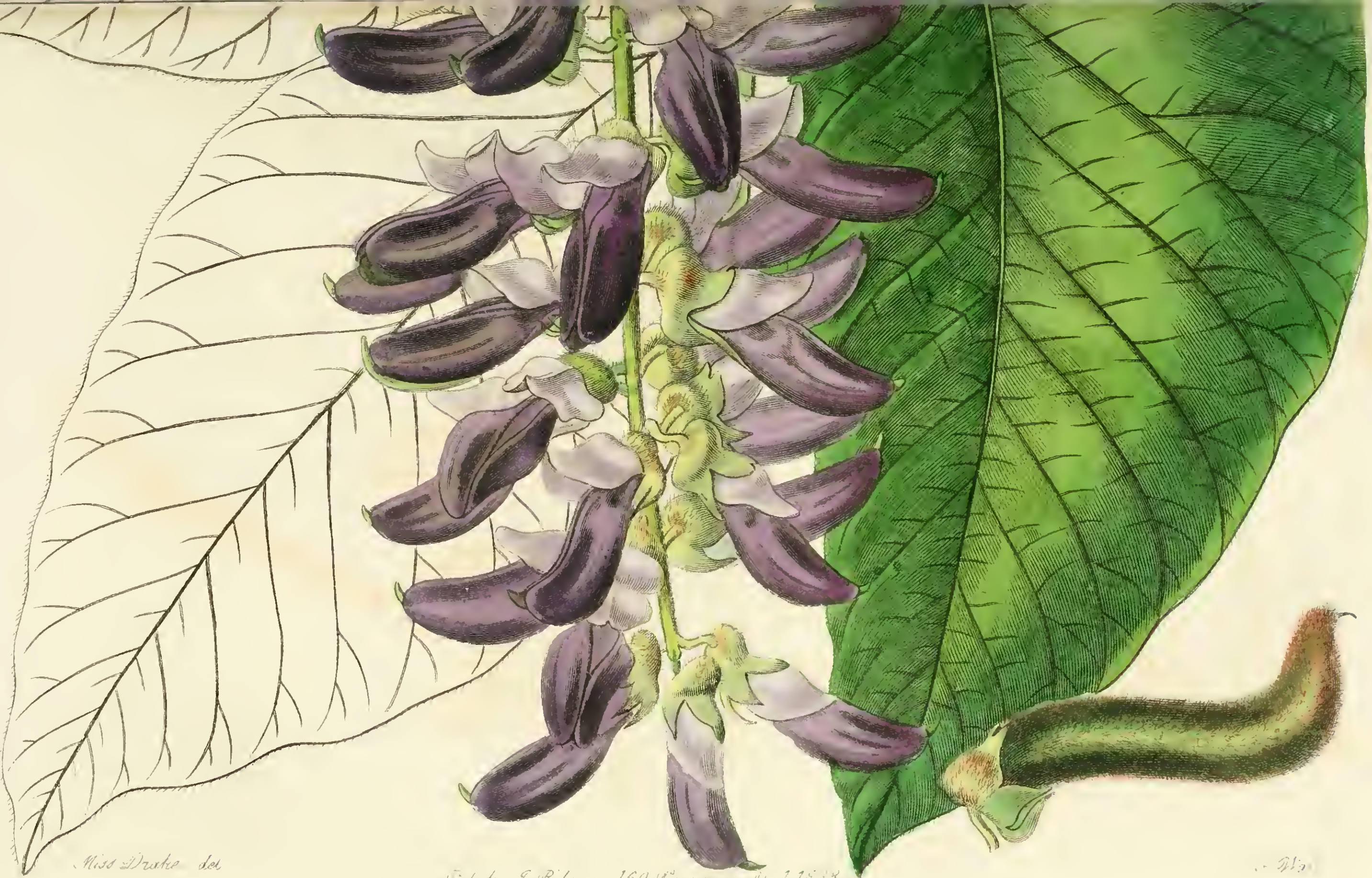
It belongs to Mr. Klotzsch's section *Intestiniflora*, or to Professor Don's genus *Syringodea*, but is quite distinct from all the species to be found in books. Fig. 1. represents the ovary and style; fig. 2. an anther with a part of its filament.

This, like the other Cape species of this charming genus, is propagated easily from cuttings. When a duplicate can be spared, it may be put into a propagating house, where there is a little artificial heat; in a short time it will send out young vigorous shoots which will form excellent cuttings. The latter may be taken off, inserted in the cutting-pot, and placed under a bell-glass in a cool green-house.

When the cuttings are sufficiently well rooted, which will be known by their beginning to grow vigorously, they may be potted in "sixty" pots, and placed upon a shelf in the heath-house, where they are fully exposed to light and air. After they are a few inches high and growing well, the top should be cut or pinched out, which will cause them to branch, and become bushy. The season preferred by heath-growers for propagating, is the spring, as soon as wood can be obtained for the purpose. The best soil for heaths is, peat naturally mixed with sand; where peat cannot be procured in this state, sand must be added to it.

No plants are more liable than heaths to suffer from neglect or mismanagement, especially in watering; either too much water is given, or too little, and the one is as bad as the other. To remedy this some distinguished cultivators mix small pieces of free-stone with the soil; and raise the ball of the plant a little at every shifting, so that it is higher in the centre of the pot or tub, than round the edges. Before large and handsome specimens can be grown and preserved, these precautions are absolutely necessary.





Miss Drake del

Pub by J Ridgway 169 Piccadilly Ap. 1 1838

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* MŪCŪ́NĂ prū́rĭēns.

West-Indian Cow-itch Plant.

DIADELPHIA *DECANDRIA.*

Nat. Ord. FABACEÆ, or LEGUMINOSÆ § PAPILIONACEÆ.

MUCUNA, *Adans.* *Calyx* campanulatus, bilabiatus, labio inferiore trifido, laciniis acutis, mediâ productiore, labio superiore latiore integro obtuso. *Corollæ* vexillum assurgens alis carinâque brevius; alæ oblongæ carinæ longitudine; carina oblonga erecta acuta. *Stamina* diadelpha, antheris 5 oblongo-linearibus, 5 ovatis hirsutis. *Legumen* oblongum, torosum, bivalve, septis cellulosis. *Semina* subrotunda, hilo lineari circulariter cincta.——Herbæ *aut* Frutices *longè scandentes.* Folia *pinnato-trifoliolata.* Racemi *axillares fructiferi sæpiùs penduli.* Legumina *sæpiùs hispida pilis innumeris fragilissimis cutem facilè penetrantibus, et ideò urentia.* DC. prodr. 1. 405.

M. *pruriens;* floribus ternatis racemosis, racemis multifloris foliis multò longioribus, leguminibus urentibus valvulis subcarinatis, foliolis subtùs hirsutis acutis medio rhomboideis, lateralibus extùs dilatatis.
M. pruriens. *DC. prodr.* 2. 405. *Macfady. fl. jam. p.* 294.
Dolichos pruriens. *Linn. sp. pl.* 1020. *Jacq. stirp. amer.* 201. *t.* 222.

The principal part of the stinging substance called Cow-itch in the shops, is probably obtained from this plant, which grows commonly in many parts of the West Indies in waste land, and in neglected cane-fields, along river courses, and upon fences, round which its long twining stems rapidly fix themselves.

For the specimen which furnished the accompanying drawing, I am indebted to Frederick Perkins, Esq., of Chipstead Place, in whose hot-house it produced, in September, 1836, an abundance of its long handsome racemes of purple flowers.

I find nothing to add to the excellent description given by Jacquin in his Stirpes Americanæ. The species is certainly very distinct from the East India *M. prurita.*

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* *Mucuna* is the Brazilian name of one of the species according to Marcgraaf.

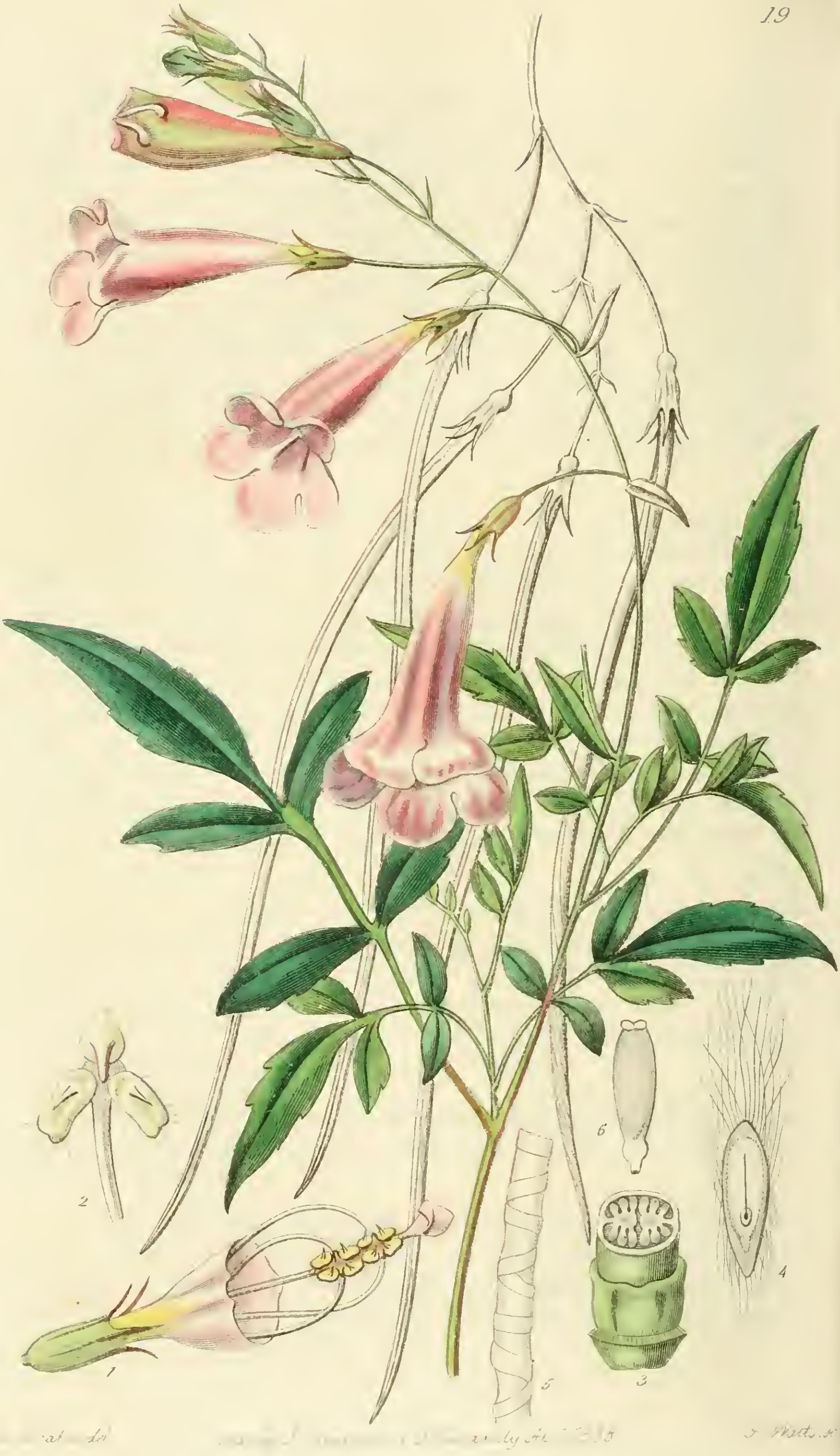
The substance called Cow-itch is the long sharp brittle hairs that clothe the pods, and some other parts of this and other allied plants. When applied to the skin they produce a painful and intolerable itching; this is however not owing to anything positively deleterious in the hairs themselves, but to their mechanical action as they break and pierce the skin. It is on account of the latter property that Cow-itch has been used medicinally as an anthelmintic. Dr. Macfadyen says, that the stinging sensation may be removed by rubbing so as to bruise the hairs, and by afterwards smearing with oil the part affected; or it is said the bristles will attach themselves to the rim of a hat passed over the skin, and may thus be withdrawn.

Speaking of the Cow-itch plant of the East Indies, Dr. Roxburgh says, " I have never been able to learn that the natives of these parts of India make any use of any part of this plant, except the hairs of the legumes, which they do not use as a medicine (vermifuge), but as an ingredient to help to poison wells. However, its being of late taken inwardly to destroy worms proves that it is not the poison they take it for; and it is more than likely that the other plants employed for the same base end, are fortunately much less dangerous than those who employ them imagine. Indeed it is only the most ignorant superstitious Poligar mountaineers who are known to attempt to poison water."

Jacquin says, that in the West Indies the hairs of this species pierce even the thick hide of the savages and negroes: it would appear however that other species are yet more formidable, for in India there is a kind called Enooga doola-gunda, or Elephant's scratch wort, whose stings produce a greater degree of pain and itching.

Notwithstanding their offensive coating, the pods of some of the species are skinned and eaten like kidney beans by the natives of India.

The large round flattened hard seeds, with a scar running all round them, which are often brought from the West Indies, which bear a rude resemblance to an asses eye, and which the French call *Yeux bourriques,* belong to some one or other of the Cow-itch plants.



[illegible] at. del. [illegible] J. Watts sc.

* AMPHĬCŎMĒ argūtă.

Finely-cut Amphicome.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. BIGNONIACEÆ.

AMPHICOME, Royle. Calyx campanulatus, 5-dentatus; sinubus nudis. *Corolla* infundibularis; limbo quinquelobo bilabiato: laciniis subæqualibus. *Stamina* didynama; antheris per pares stylo arctè appressis, connectivo appendiculato lobisque aristatis. *Rudimentum* staminis quinti subulatum. *Discus* hypogynus cyathiformis. *Ovarium* 1-loculare, placentis 2 linearibus parietalibus polyspermis; *stigma* bilamellatum. *Capsula* siliquiformis, suturâ alterâ dehiscens; dissepimento libero. *Semina* appensa, utrinque pilis distinctis comosa. ——Herbæ *terrestres Himalenses,* foliis *pinnatis.*

A. *arguta;* foliis caulinis bijugis, foliolis sessilibus ovato-lanceolatis parcè et grossè serratis terminali sæpiùs trilobo, calycis laciniis subulatis.
A. arguta. *Royle Illustr. t.* 72. *f.* 1.
Incarvillea arguta. *Id. p.* 296.

Caulis *perennis, subterraneus, radicans,* ramos *glabros,* 2-3-*pedales, atrovirides promens.* Folia *subcoriacea, atroviridia, glabra, pinnata, foliolis ovato-lanceolatis acuminatis sessilibus utrinque parcè et grossè sine ordine serratis, apice integerrimis, terminali sæpiùs trilobo: caulina bijuga; inferiora* 4-*juga.* Racemi *terminales, secundi, pauciflori, pedunculis filiformibus,* 9 *lineas longis, gracilibus, nutantibus.* Calyx *campanulatus, subciliatus,* 5-*dentatus; laciniis subulatis, sinubus plicatis membranaceis.* Corolla 2 *pollices longa, glaberrima, dilutè rosea, infundibularis, laciniis labii inferioris rotundatis, superioris subtruncatis.* Antheræ *lobis pilosis, truncatis, basi divergentibus, infra apicem aristatis; connectivo apice appendiculâ ovatâ paritèr aristatâ aucto.* Ovarium *lineare, uniloculare; placentis linearibus polyspermis;* stylus *filiformis, staminum longitudine, antherisque amplexus;* stigma *bilamellatum, laciniis ovatis ciliatis.* Rudimentum *staminis quinti minimum subulatum.* Capsula *filiformis, siliquosa, glabra, suturâ unicâ tantùm hinc dehiscens, unilocularis, polysperma, placentâ liberâ, lineari, planâ, marginibus incrassatis, per axin haud sine laceratione bipartibili; verosimiliter e duabus oppositis approximatis adnatis a valvulis suis liberatis confectâ.* Semina *numerosa, appensa, ovalia, compressa, paulo cis extremitatem alteram inserta; testâ papyraceâ tenaci, utrâque extremitate in capillis tenuissimis comam referentibus distractâ; hi capilli, sub lente* 500 *diametra augente, imaginem referunt tubuli strangulati filum latum irregulare nunc spirale, nunc annulare, nunc subreticulatum continentis.* Embryo *sacco inclusus proprio apice, chalazæ loco, inflato, basi hilo proximo in tubulum producto, exalbuminosus; cotyledonibus oblongis plano-convexis placentâ parallelis, radiculâ parvâ conicâ exsertâ.*

Seeds of this very rare and curious plant were given to the Horticultural Society by Professor Royle, marked as having been collected on the Himalaya mountains at the elevation of from 6000 to 8000 feet. A single individual

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* From αμφι around, and κομη hair, in allusion to the structure of the seeds.

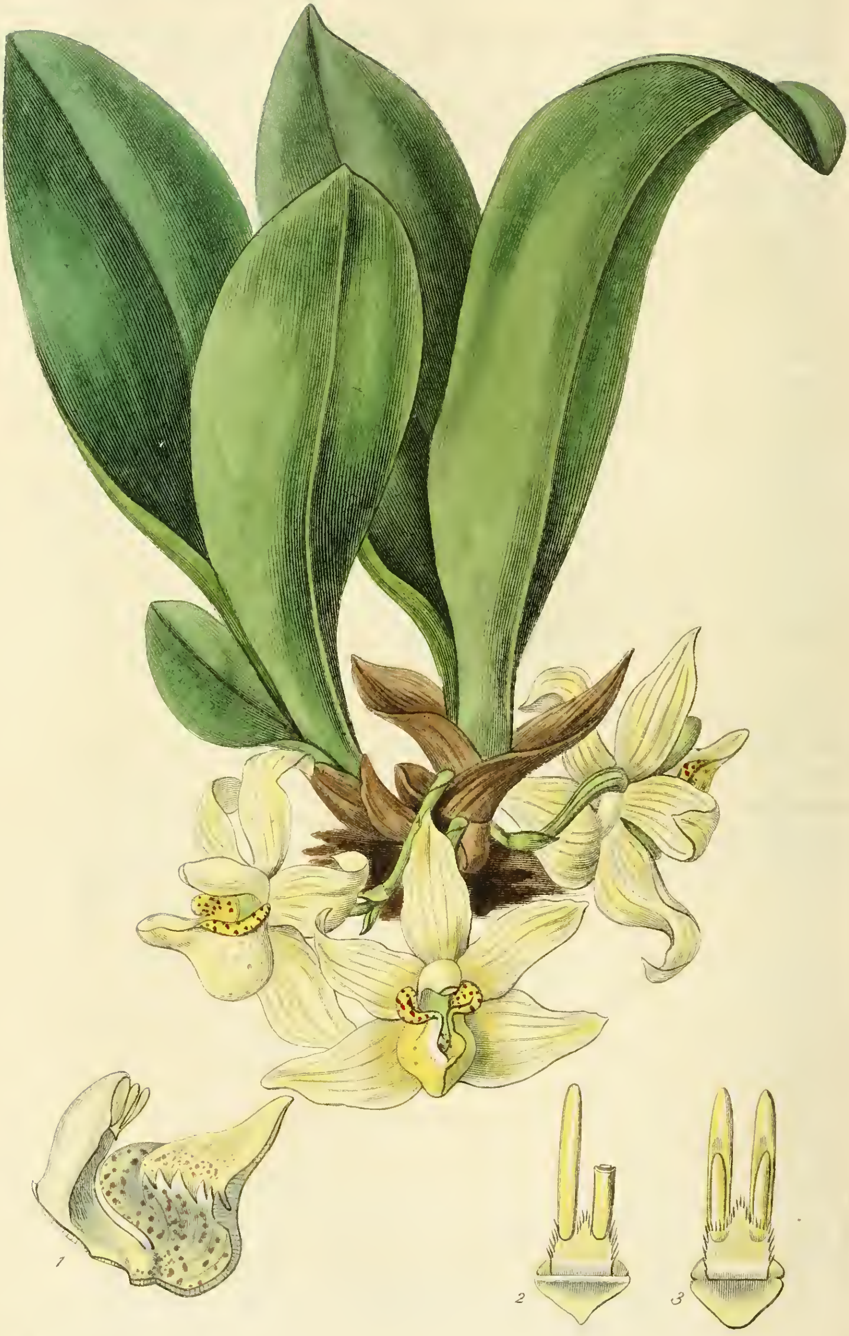
was raised, and produced its beautiful and graceful flowers in August 1837. It is stated by Dr. Royle to inhabit the valley of the Buspa, and the country near Turanda, in Kunawur.

It is very different from *A. Emodi*, a still finer species, found near Sirinuggur, and on the Suen range of hills, with much larger and more numerous flowers, a more robust foliage, and a much more considerable stature. This species still remains to be introduced.

The subject of the present plate is a very elegant and rather slender perennial, growing about a foot high, and probably hardy enough to stand out if planted in any dry situation or on rockwork, and protected during winter from the wet and most severe frost by a hand-glass. It is very impatient of wet even in summer, and requires to be kept particularly dry during winter; it thrives best in a loamy soil with a small portion of sandy peat added, and may be increased by seeds or cuttings. The seeds should be sown about February, in a loamy soil, and placed in the greenhouse. The plants grow slowly, and will not flower before the second year. Cuttings of the young shoots strike any time from March to September, but rather slowly. They will continue flowering from June to September; the same flowers remain for some days in perfection; they are destitute of scent.

Dr. Brown considers this genus not distinct from Incarvillea, and, in conformity with that opinion, Dr. Royle has abandoned his name Amphicome. Nevertheless it appears to me that the characters assigned to the latter as a subgenus are quite sufficient for a higher purpose, in an order the distinctive characters of which are such as those of dicarpous Monopetalæ.

In the plates the dissections illustrate the curious structure of this plant. Fig. 1. is a view of a calyx and the lower part of the tube of the corolla, the remainder being cut away in order to shew how the anthers embrace the style. Fig. 2. is one of the curious anthers, with a horn upon each lobe, and another upon the appendage of the connective. Fig. 3. represents a section of the ovary, together with the hypogynous cup in which it is seated. Fig. 4. is the face of a seed inverted, shewing the hairs proceeding from each end, the hilum, and the impression of the embryo lying within it. Fig. 5. is a very highly magnified view of one of the hairs of the seed. Fig. 6. represents the loose sac in which the embryo lies, with the soft inflated chalaza at the apex.



Drake del.   Pub. by J. Ridgway 169 Piccadilly Ap. 1 1838.   J. Watts sc.

* STĔNĬĂ pallĭdă.

Pale Stenia.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.

STENIA. Lindl. Perianthium explanatum, subæquale, sepalis lateralibus basi obliquis. *Labellum* cum basi columnæ continuum (indivisum), concavum, disco appendiculatum. *Columna* semiteres, basi producta, apice rotundata, mutica. *Anthera* bilocularis. *Pollinia* 4, linearia, geminata, basi sejuncta, dorsalia minima. *Caudicula* subquadrata acuta (pubescens).——Herba *acaulis, ebulbis.* Folia *oblonga, basi angustata, apice recurva.* Flores *solitarii, radicales, basi ovarii bracteolati.* Bot. reg. fol. 1991. in textu.

S. pallida. *Bot. reg. l. c.*

Caulis *nullus, nec rhizoma conspicuum, nec pseudobulbus.* Folia 2-3, *oblonga, acuta, avenia, basi paulò angustata et carinata, è squamis spathaceis brunneis vaginantibus erumpentia; texturâ rigido-chartacea.* Scapi *radicales, prostrati, uniflori, apice bracteis duabus oppositis ovatis instructi, ovario breviores, saltèm haud longiores.* Perianthium *explanatum, pallidè citrinum, diametro sesquiunciali et ultrà; sepalis petalisque æqualibus, ovatis, lineatis, acutis.* Labellum *saccatum, integrum, carnosum, ovatum, cum pede producto columnæ continuum, pallidè citrinum, rubro-punctatum, cristâ transversâ dentatâ.* Columna *semiteres, clinandrio proclivi, facie pubescens.* Pollinia 4, *linearia, obtusa, dorsalia minima, caudiculæ brevi villosæ adnata, glandulæ rhomboideæ cartilagineæ medio insertæ.*

A rather pretty epiphyte, imported from Demerara by Mr. Barker of Birmingham, in whose very extensive collection of Orchidaceous plants, this drawing was made last August. It differs essentially from Maxillaria, which it resembles in habit, in the labellum not being articulated with the foot of the column, a distinction, the importance of which there is at present no cause to suspect. In general appearance it is more like Maxillaria Rollissoni than any plant I am acquainted with, but it wants the pseudo-bulbs of that species.

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* From στενος narrow, in allusion to the form of the pollen-masses.

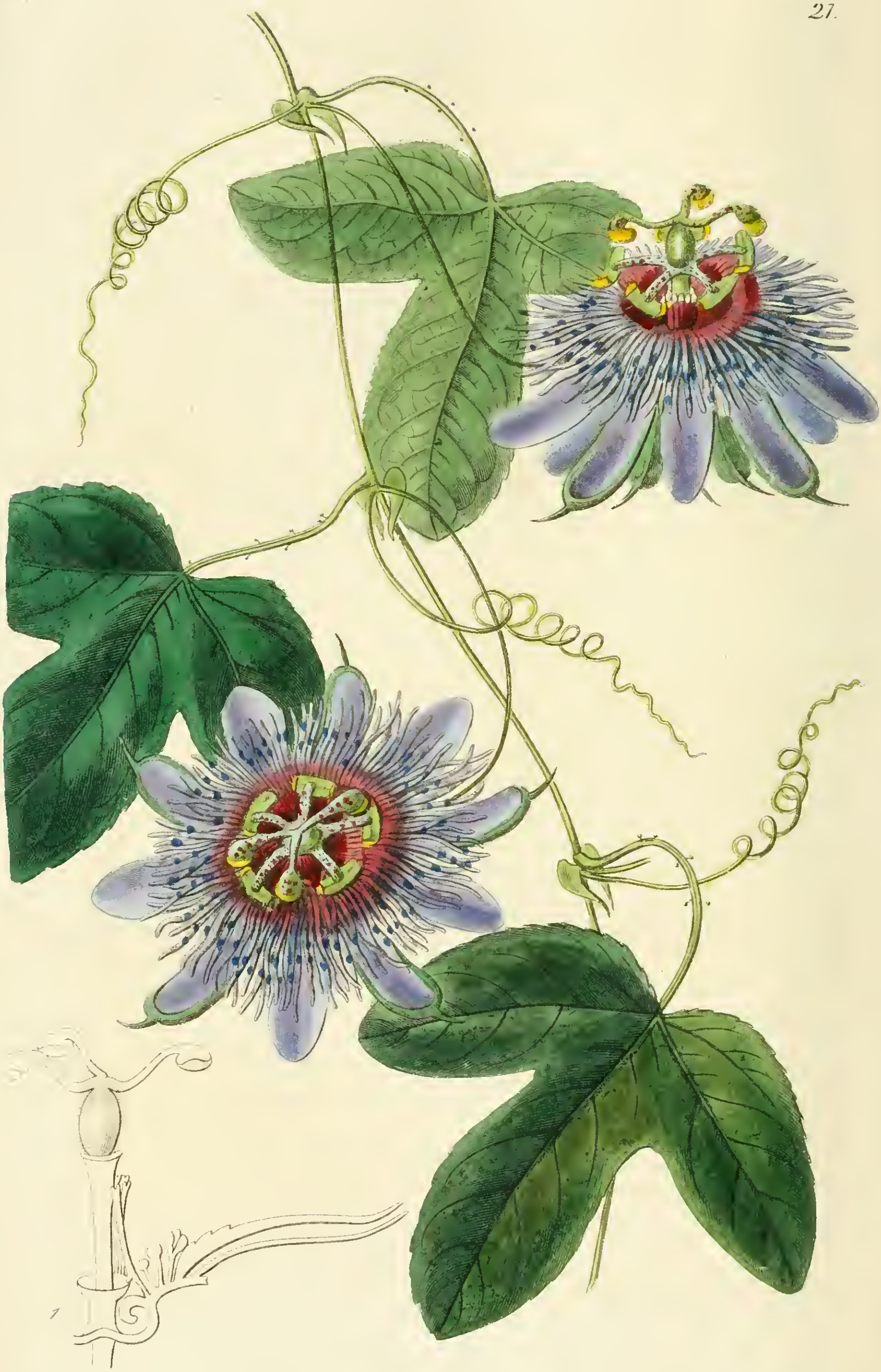
No one has deserved better of Botanists than Mr. Barker, and I therefore see with pleasure a genus named after him by Messrs. Knowles and Westcott, with the following character.

BARKERIA.

Sepala patentia vel reflexa, basi subconnata. *Petala* subæqualia vel paulò latiora. *Labellum* liberum, cum columnâ parallelum, limbo indiviso, disco costato. *Columna* elongata, plana vel compressa, sulcata, alata, super labellum incumbens. *Anthera* carnosa, 4-locularis, septorum marginibus membranaceis. *Pollinia* 4, caudiculis totidem ligulatis reflexis, per paria subconnatis.——Herba *epiphyta, Mexicana, pseudobulbosa* (?), foliis *alternis, vaginantibus, subcarnosis,* scapo *terminali racemoso.* Floral Cabinet, 7.

The only species mentioned is *B. elegans*, a beautiful Mexican plant with delicate lilac flowers. I believe the Cattleya domingensis, *Gen. & Sp. Orchid. p.* 118. also belongs to the genus.

27.



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* PASSĬFLŌRĂ onȳchĭnă.

Lieut. Sulivan's Passion-flower.

MONADELPHIA *PENTANDRIA.*

Nat. ord. PASSIFLORACEÆ.
PASSIFLORA. *Bot. Reg. vol.* 1. *fol.* 13.

P. *onychina;* ebracteata, foliis trilobis cordatis glabris: laciniis oblongis obtusis subæqualibus obscurè serrulatis, petiolis 4-6-glandulosis, pedunculis foliorum longitudine, coronâ margine inflexâ: serie intimâ radiorum erectâ conicâ intùs supra basin dentiferâ, extimâ duplici filiformi patentissimâ, intermediâ subtriplici brevissimâ capitatâ; ovario tomentoso. *Bot. Reg. ann.* 1838. *misc. no.* 1.

It has already been stated at p. 1. of the miscellaneous matter of this volume that the beautiful Passion-flower now figured, was obtained from the stove of Miss Traill, Bromley, Kent, in the beginning of last November. At the same time I was favoured by that Lady with the following note.

"The Passiflora is of most luxuriant growth, and has been covered with flowers for the last six weeks. It is planted in a border, and from having been so placed for above twelve months without shewing bloom, the gardener pruned it severely this last spring, when it shot forth with redoubled vigour. It is not known whether it will bear a cooler atmosphere. It does not shew for seed."

At that time I believed it had been for the first time introduced by Mr. Lowe, of Clapton; but upon looking over some old papers I have found the following description of the plant by Mr. Booth, who sent me a drawing of it some years ago under the name of *P. Sulivani;* unfortunately this was overlooked at the time the name *onychina* was given the species, in allusion to its beautiful blue colour, and it is now too late to remedy the oversight. I however trust there will be plenty of opportunities of recognizing the merits of Mr. Sulivan—to whose zeal, intelligence, and activity in the promotion of science, no one can be more ready to bear testimony than myself.

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* See Bot. Reg. fol. 1339.

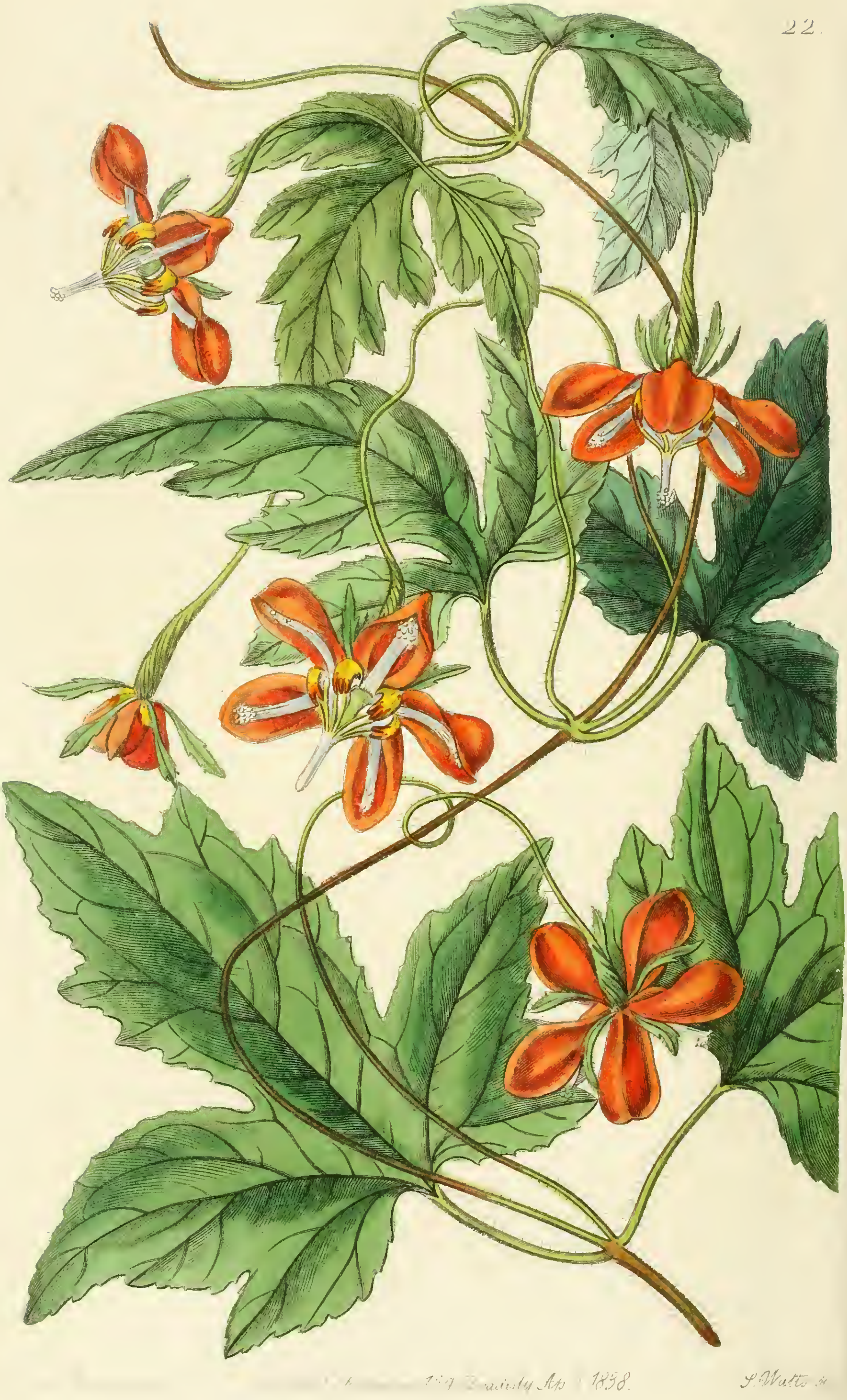
" For this pretty addition to our collection of Passifloras, we are indebted to Bartholomew James Sulivan, Esq., now of H.M.S. the Beagle, who procured the seeds, with others, from the Botanic Garden at Rio de Janeiro, in 1827, and presented them, on his return, to Sir Charles Lemon, Bart. M.P., in whose garden at Carclew, Cornwall, the present plant originated.

" It appears to be different from any of the species hitherto introduced, and is distinguished principally by its long, round, slender branches; small purplish coloured flowers; thin leaves; and peculiar odour. Whether it will succeed in the green-house or conservatory, remains to be ascertained; as the plant from which the accompanying figure and description were made, has been constantly kept in the stove. It has spread over a considerable part of the house, intermixed with *Quisqualis Indica* and *Passiflora racemosa*, and it is worthy of remark that where it was pruned and trained with care not a flower is to be seen, while the shoots which were allowed to ramble are profusely studded with delicate blossoms.

" The *stem* is round and of a glaucous green colour, when old it becomes of a bright green, and is slightly channeled. The *branches* are long and slender. The *stipules* are mostly deciduous, being only to be met with towards the extremity of the shoots; they are small, oblique and angular, with a small arista at the point; their colour is a pale glaucous green. The *leaves* are three-lobed, not very strong; on the upper-side they are smooth and of a deep green; the under-side is much paler and glaucous; the *lobes* flat, oblong, and blunt at the point, the middle lobe the largest, with a conspicuous pale coloured midrib. *Petioles* inserted in the margin of the leaves, round, varying from an inch to two inches in length, and having usually three pair of elevated top-shaped glands towards their junction with the stem. *Tendrils* smooth and round, of a bright green colour. *Flowers* single and axillary, produced on a round, smooth, slender peduncle of about two, or two and a half inches in length. *Involucre* none. *Calyx* when closed angular, oblong, ovate. *Tube* pale green, scarcely exceeding one-fourth the length of the segments. *Segments* when expanded narrow and concave, a little shorter than the petals, which they resemble in colour inwardly, but are paler; externally they are much keeled and pale green, the keel terminating in an acute mucronated point, a little below the apex. *Petals* spreading, slightly concave, rather broader and longer than the segments of the calyx, of a rich, bright, lapis-lazuli blue. *Crown* consisting of four distinct series of rays. The two outer ones next the petals are spreading, and both about the same length, which is scarcely that of the calyx and petals. They are filiform, compressed, thick and fleshy at the base, and of a deep reddish purple for about one-third their length. The same proportion at the extremity is of a paler colour, and the intermediate space is almost white, spotted with blue. The third series is composed of a number of small, upright, filiform stumps, having the appearance of glands, of a dark purple colour. The fourth, or inner series is united at the base and rises upright, converging round the shaft. It consists of a number of deep reddish purple threads, rising nearly the full height of the shaft, and tipped with white. The *shaft* is about two-thirds the length of the petals, round, and of a pale yellowish green spotted with purple. *Filaments* of the same colour, and similarly spotted. *Anthers* large, of a bright green above, and deep yellow beneath. *Ovary* oblong, slightly furrowed, downy, pale yellowish green. *Styles* club-shaped, of the same colour as the shaft and filaments, dotted with purple. *Stigmas* round, capitate, bright green.

"Its time of flowering appears to be during the latter end of October, and through November. The soil in which it seems to grow very well is a rich sandy loam. We have not yet increased it, but there is little doubt that by cuttings, it may be propagated with as much facility as any of the other species."

22.



[illegible] 169 Piccadilly Ap 1 1838. S. Watts sc

* LŌÁSĂ laterĭ́tĭă.

Red Loasa.

POLYADELPHIA *POLYANDRIA.*

Nat. ord. LOASACEÆ.
LOASA. *Bot. Reg. vol.* 8. *fol.* 667.

L. *lateritia;* hispida, pungens, scandens, foliis cordatis palmatis pinnatis pinnatifidisque nunc trilobis; laciniis grossè serratis, petalis sessilibus carinatis lateritiis, appendiculis trilobis truncatis intus setis duabus membranaceis auctis, capsulâ tortâ cylindraceâ.
L. lateritia. *Hooker in Bot. Mag. t.* 3632.
L. coccinea. *Hort.*

A fine climbing species of this striking genus, remarkable for its orange red or bright brick-coloured flowers. It is covered all over with stimuli, or stiff hairs, which sting like those of the common nettle. The foliage varies very much in the degree of division: in the plate above quoted in the Botanical Magazine, the leaves are all represented and described as pinnated; in the plants I have seen they are more usually palmated, pinnatifid, or three-lobed, as in the annexed figure.

It flowers in almost every month of the year, freely out of doors in summer, and pretty well under glass during the remainder of the year. It was first sent me by Mr. Veitch of the Mount Radford Nursery, near Exeter, in October, 1837; but has already become comparatively common.

It was originally raised at the Botanical Garden, Glasgow, from seeds obtained by Mr. Tweedie, in Tucuman.

Nothing can be more simple than the cultivation of this plant, which may be multiplied either by seeds or cuttings.

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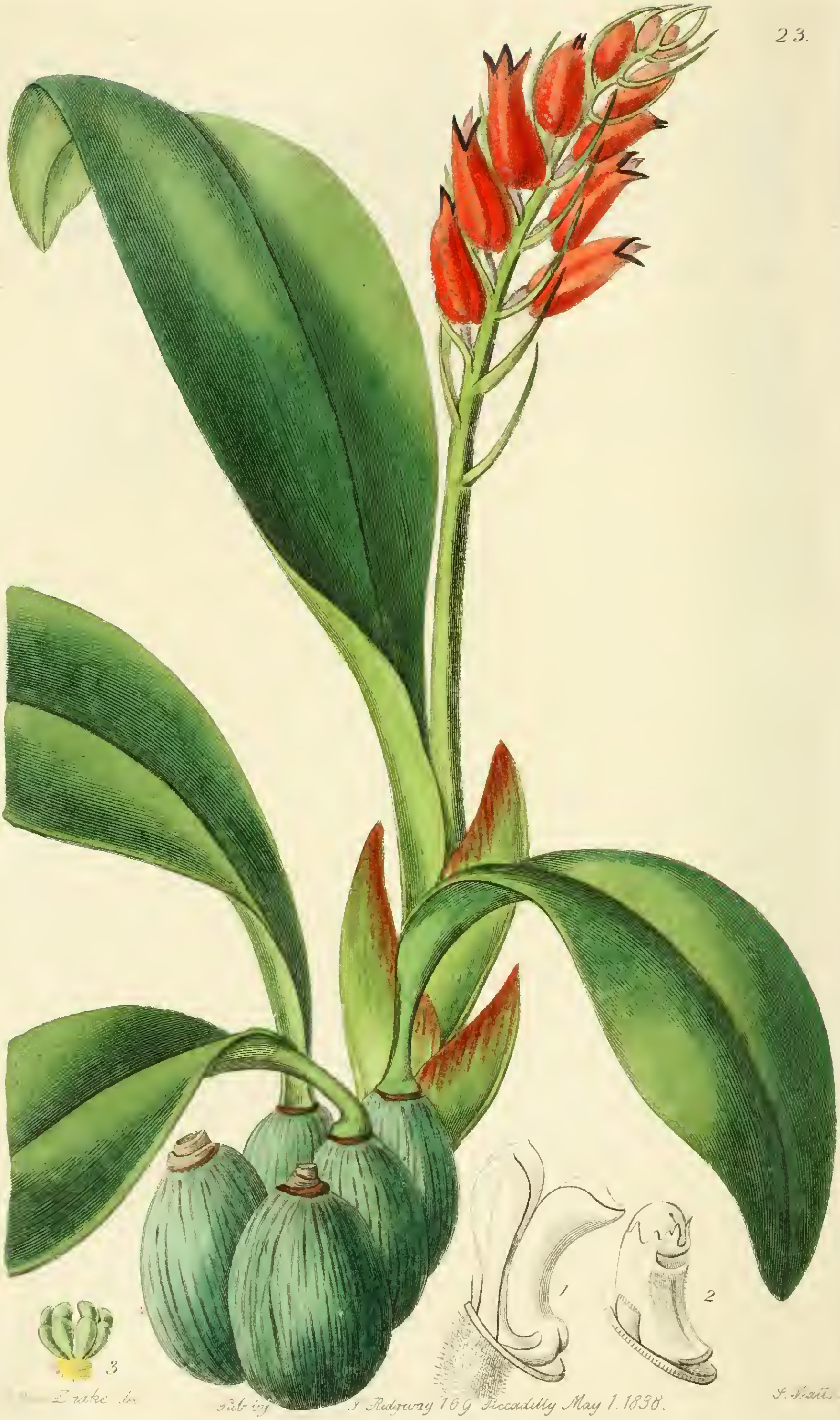
* Meaning unknown.

If the seeds are sown in autumn, or early in spring, the young plants will flower beautifully during the ensuing summer. It is so easily propagated by cuttings, that some which were taken off, and inserted in silver sand, had strong roots, and were ready for potting off in four days.

The soil which seems to suit it best is a rich sandy loam, but it will grow in any common garden soil.

Like the other species it succeeds very well when planted in the flower border in summer, and will form a very pretty hedge if trained in the same manner as sweet peas. It will continue to throw out its beautiful blossoms until destroyed by frost.

23.



Drake del. Pub by J. Ridgway 169 Piccadilly May 1. 1838. J. Watts sc.

* CRYPTOCHÍLŬS sanguínĕă.

Blood-coloured Cryptochilus.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.

CRYPTOCHILUS. Perianthium tubulosum, fauce contractum, basi anticè globosum. *Sepala* ferè omninò connata, apice tantùm libera. *Petala* libera, paulò minora. *Labellum* indivisum, liberum, cum basi productâ columnæ continuum. *Columna* semiteres, clinandrio dentato. *Anthera* bilocularis. *Pollinia* 8, paribus 4 materiei pulvereæ adhærentia.——Terrestris ; pseudobulbis *aggregatis.* Folia *coriacea, plana, in sicco striata.* Spica *secunda, multiflora.*

C. sanguinea. *Wallich tentam, p.* 36. *t.* 26. *Gen. & Sp. Orch. p.* 193.

It is needless to redescribe a plant which has already been so carefully illustrated by Dr. Wallich in the work above quoted.

A very pretty species with roundish pseudo-bulbs forming tufts, and producing each a single broad coriaceous recurved leaf. When the pseudo-bulbs are forming they are enveloped in broad, green, carinate sheaths, tinged with crimson at the edge ; but the latter soon wither away. The flowers were neither so numerous nor was the spike so long in the cultivated specimen as in the wild ones in my possession from Sylhet ; they are of a brilliant scarlet, and form a compressed or one-sided spike, which, after the flowers have fallen off, is pectinated as it were with the long narrow acuminate rigid bracts.

It is a native of rocks in the northern provinces of India. Dr. Wallich found it only once, and then in a single spot on stones, on the summit of Chandaghiry, a mountain of

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* The name refers to the concealed lip, or labellum, which cannot be easily seen, in consequence of the contraction of the mouth of the calyx.

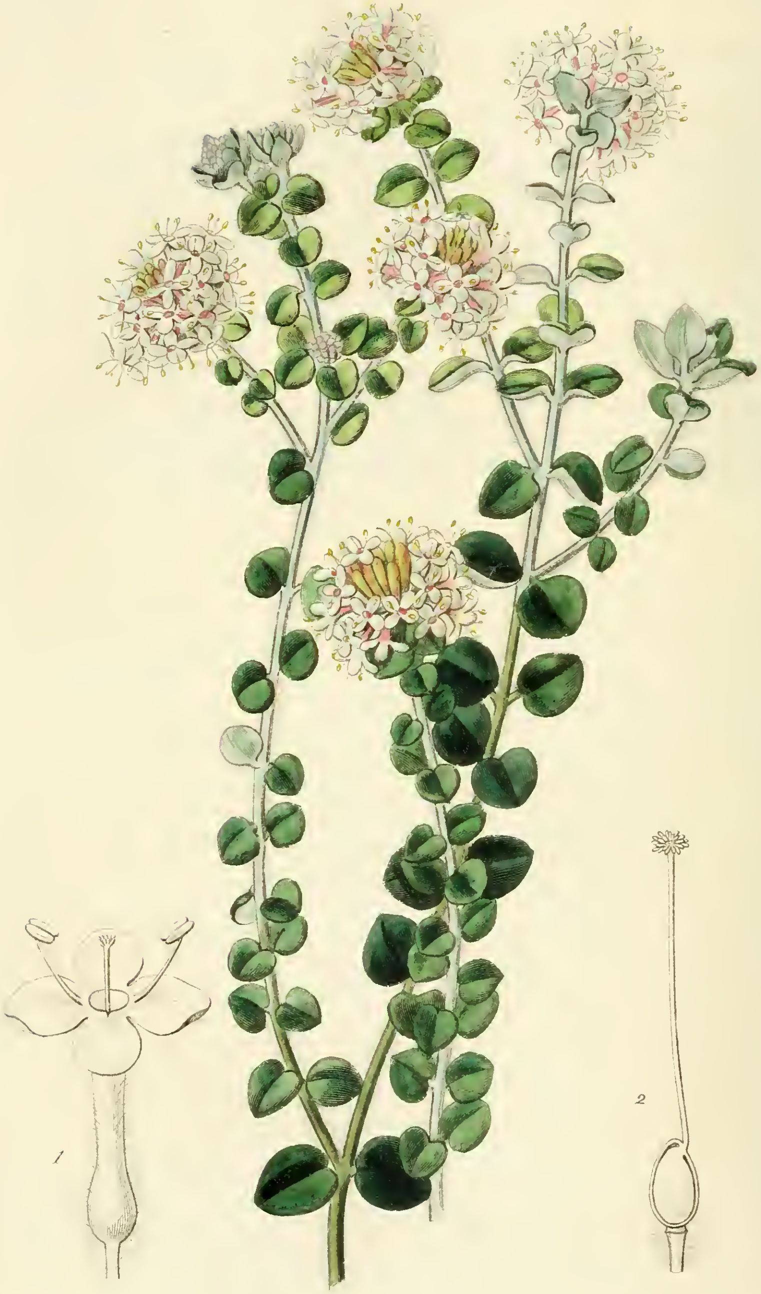
Nepal; he also received it from his collectors, who sent it from the Cachar mountains on the frontier of Sylhet.

The drawing was made in June 1837, in the collection of Messrs. Loddiges.

When this genus was placed in the Genera and Species of Orchidaceous plants, I had only examined a young dried bud, and I had been led to suppose it a member of the section called Vandeæ, but the recent plant shows that it in fact belongs to Epidendreæ, and that it must be placed, along with Acanthophippium in the neighbourhood of Phaius and Bletia.

Fig. 1. represents the petals and labellum after the calyx has been cut away; 2. is the column seen in half-front, with the lacerated erect margin of the anther-bed (clinandrium); 3. shews the pollen-masses adhering to a shapeless granular disk.

24



* PIMELĔĂ incānă.

Hoary Pimelea.

DIANDRIA *MONOGYNIA.*

Nat. ord. THYMELACEÆ.
PIMELEA. Bot. Reg. vol. 15. *fol.* 1268.

P. *incana ;* ramulis lanatis, foliis distantibus ovatis ovalibus et orbiculatis margine recurvis supra glabris subtùs lanatis, floribus laxis villosis foliis floralibus multò longioribus, staminibus longè exsertis.
P. incana. *R. Brown prodr.* 1. 217.
P. nivea. *Floral Cabinet,* not of Labillardiére.

Frutex *ramosus, erectus, ramulis elongatis debilibus apice lanuginosis.* Folia *parva, distantia, coriacea, suprà glabra subtùs lanuginosa ; inferiora opposita ovata acuta, intermedia ovalia obtusa, suprema alterna orbiculata ; omnia margine recurva.* Capitula *laxa, multiflora, haud involucrata, foliis floralibus longiora.* Calyces *villosi, candidi, basi rosei, laciniis oblongis obtusis supra glabris.* Stamina *extra faucem inserta, erecta laciniis calycinis æqualia.* Ovarium *et* stylus *glabri.*

For specimens of this very pretty shrub I am indebted to Miss Copeland of Leyton, who obligingly sent it me in April 1837. It at that time was a bush about five feet high, with long slender side branches, and was covered with its neat clusters of pink and white flowers from the foot to the top of the plant.

It is a native of Van Diemen's Land, and was raised by Mr. A. Kinnock, the Gardener at Leyton, in the year 1834, from seeds given Miss Copeland by Mr. Turnbull. The flowers were produced for the first time in 1836.

This species, like all the rest of the genus, succeeds very well on the front shelf of a green-house, if not too much crowded with other plants. The soil in which it grows best is a sandy-peat, mixed with a little fresh loam and decayed dung. It is easily propagated by cuttings, at any season, particularly in spring, or early in summer.

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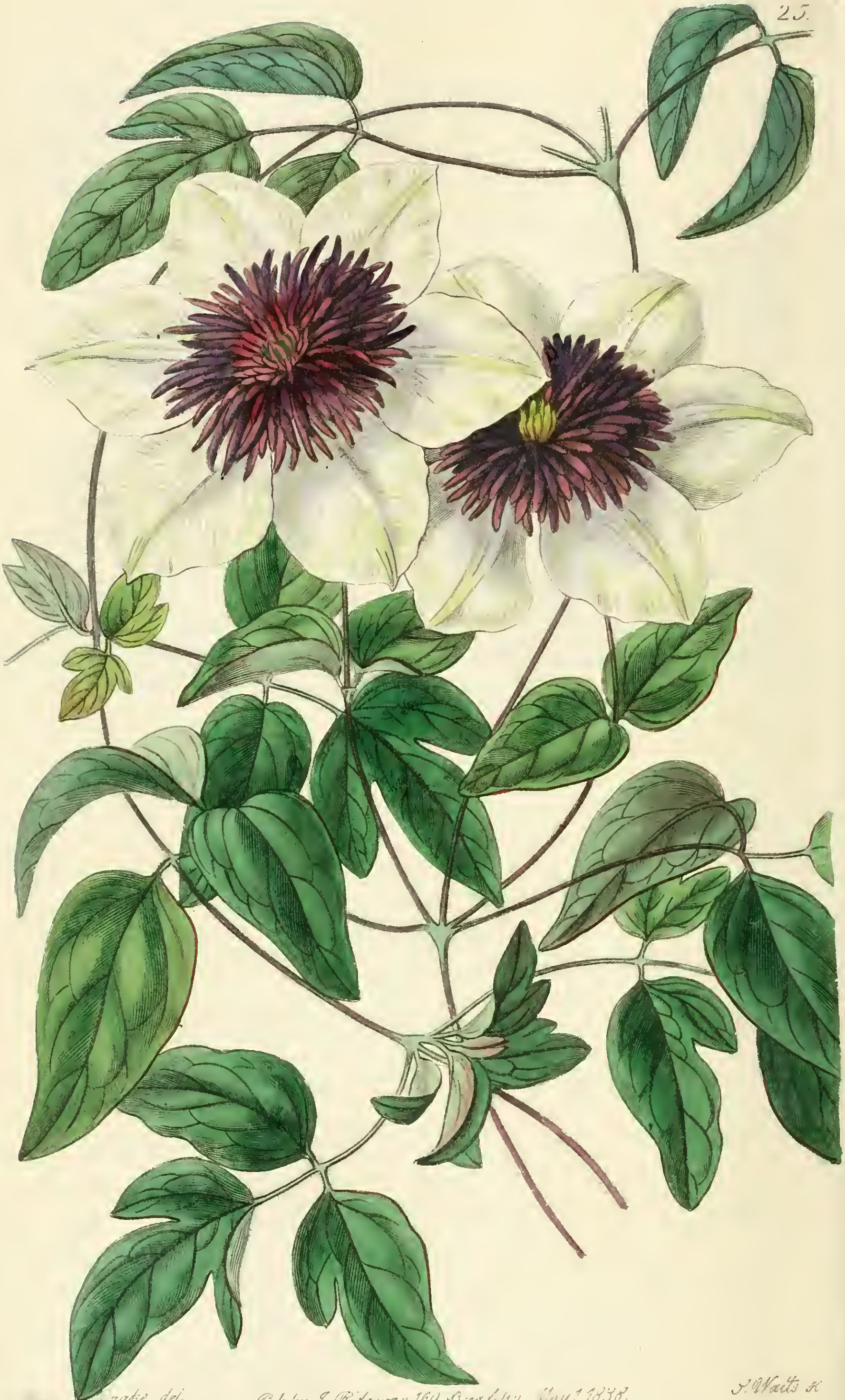
* See Bot. Reg. fol. 1268.

The young plants should be shifted frequently, and must have always plenty of pot room ; otherwise they will become stunted and unhealthy. The finest specimens of Pimeleas are generally seen in conservatories, where they are planted out in the border of the house ; there they become bushy plants and bloom profusely.

There is a good figure of this in the Floral Cabinet, tab. 7, under the name of *P. nivea*, a species with which this must necessarily be confounded, if the short characters in Dr. Brown's Prodromus are alone consulted. *P. nivea* is however a very different plant, with imbricated leaves, the underside of which is not woolly, but shaggy with long parallel hairs ; its branches are short and stiff, its flower-heads very close and compact, and the anthers are nearly or quite sessile in the orifice of the tube of the calyx. I have never seen it in gardens.

25.



Drake del. Pub by J. Ridgway 169 Piccadilly May 1. 1838. J. Watts sc.

* CLĔMĂTĬS flōrĭdă; *var.* bĭcŏlŏr.

Siebold's Clematis.

POLYANDRIA *POLYGYNIA.*

Nat. ord. RANUNCULACEÆ.
CLEMATIS. Bot. Reg. vol. 2. fol. 97.

C. *florida;* pedunculis unifloris folio longioribus, foliis ternatim decompositis, segmentis ovatis acutis integerrimis, sepalis ovali-lanceolatis acuminatis. *DC. syst.* 1. 160.
C. florida. *Thunb. fl. jap.* 240. *Jacq. hort. schönb.* 3. 57. *t.* 357. *Bot. Repos. t.* 402. *Bot. mag. t.* 834.
Var. *bicolor;* staminibus sterilibus linearibus v. lineari lanceolatis atropurpureis.
C. Sieboldi. *Hort.*

This very handsome plant is certainly a mere variety of C. *florida*, from which it differs principally in the clearness and brightness of colour of the flowers, and in being of rather more robust growth. It is about as hardy as that species, and one of the very best climbing plants that have been introduced for many years. Trained to some well contrived basket work, fixed upon a pot, and protected by a greenhouse from rain and other causes likely to dim its colours, it ought to form one of the most striking show-plants ever seen.

The last winter has killed it to the ground, or perhaps entirely destroyed it.

It grows freely in any good loamy soil, flowers nearly all the summer, and may be increased either by layers or cuttings, but rather slowly.

The drawing was made in the nursery of Messrs. Lowe and Co. of Clapton, in July 1837.

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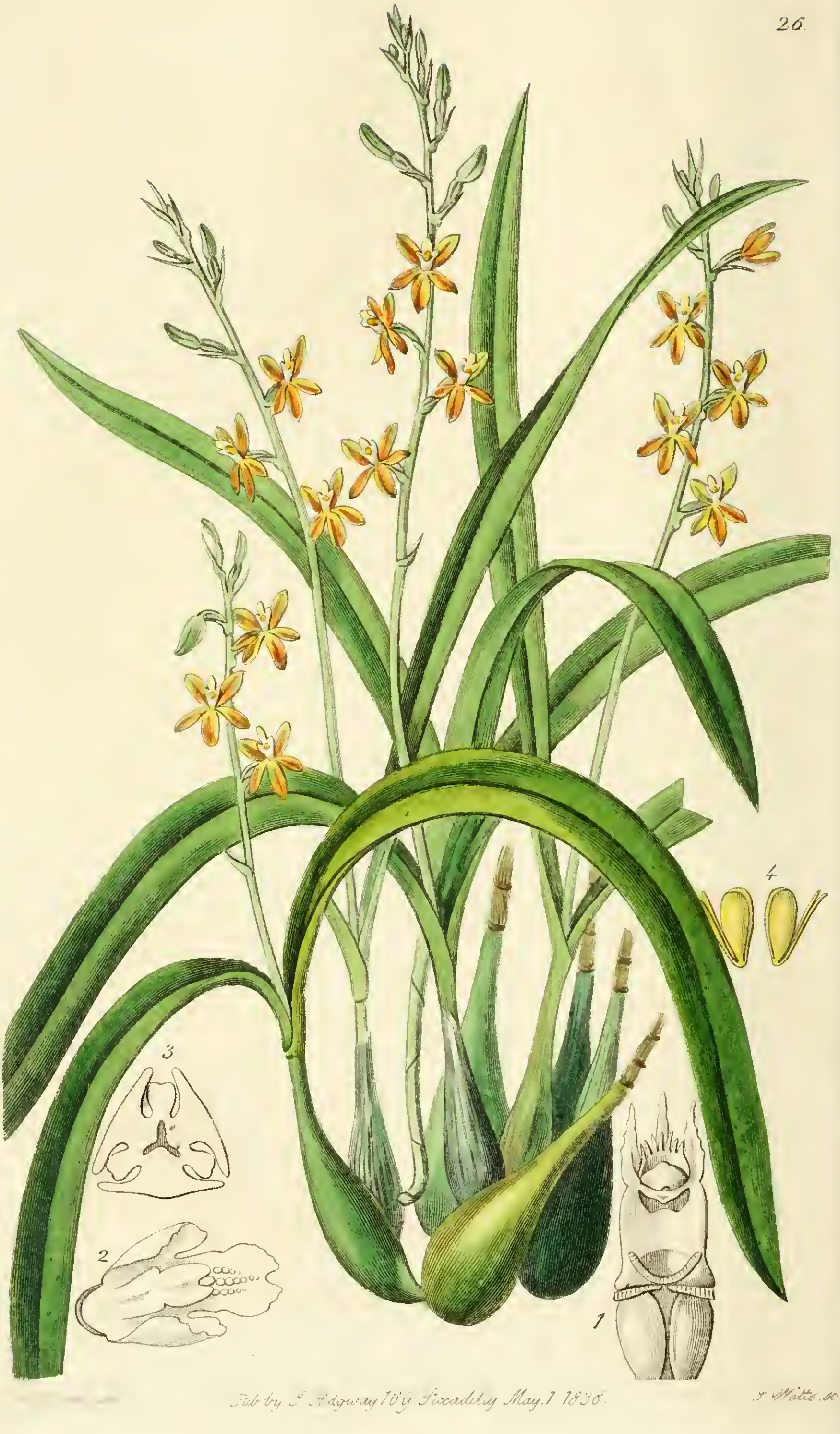
* See Bot. Reg. fol. 1234.



Pub by J. Ridgway 169 Piccadilly May 1 1838.

J. Watts sc.

* EPIDÉNDRŪM ochrácĕūm.

Yellow-Ochre-coloured Epidendrum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.
EPIDENDRUM. Bot. Reg. vol. 1. *fol.* 17.

E. *ochraceum ;* pseudobulbis obversè pyriformibus cæspitosis sursum attenuatis 1-3-phyllis, foliis linearibus acutis recurvis scapo æqualibus, spicâ terminali laxiflorâ, bracteis rigidis acutis squamiformibus, sepalis petalisque subæqualibus lineari-oblongis obtusis, labello postico sublibero trilobo medio calloso: laciniis lateralibus inflexis truncato-rotundatis denticulatis intermediâ brevi emarginatâ, callo plano apice tridentato, columnâ apice tricorni, clinandrio denticulato, ovario triptero. *Bot. Reg.* 1838. *misc. no.* 15.

Calycina foliola 5, *patentia, subæqualia, fusca, duobus interioribus lateralibus paulo angustioribus et basi angustatis, omnibus liberis.* Labellum *basi cum gynostemio connatum,* (*respectu germinis*) *erectum, flavum, laminâ trilobâ, lobis lateralibus gynostemii partem superiorem amplectentibus, intermedio basi in prono denticulis tribus luteis instructo.* Gynostemium *apice tripartitum, laciniis laceris.* Anthera *terminalis operculata* 4-*locularis, corpusculis polliniferis* 3 *cereaceris fœta, pedicellatis parallelis.* Schiede mss.

This pretty little plant inhabits several parts of tropical America. Messrs. Loddiges received it from Oaxaca; Mr. Skinner found it in Guatemala ; and I have specimens from Schiede and Deppe, for which I am indebted to Professor Schlechtendahl, collected near the Hacienda de la Laguna, in Mexico, flowering in August.

In July 1836, I first received specimens from Sir Charles Lemon's garden, along with an account of the plant by Mr. Booth, which I take this opportunity of subjoining.

"This singular little plant was gathered in Guatemala, by George Ure Skinner, Esq. and brought to this country in June 1835, by Captain Sutton, who presented it with others from the same place to Sir Charles Lemon, Bart. in whose collection it flowered in July 1836.

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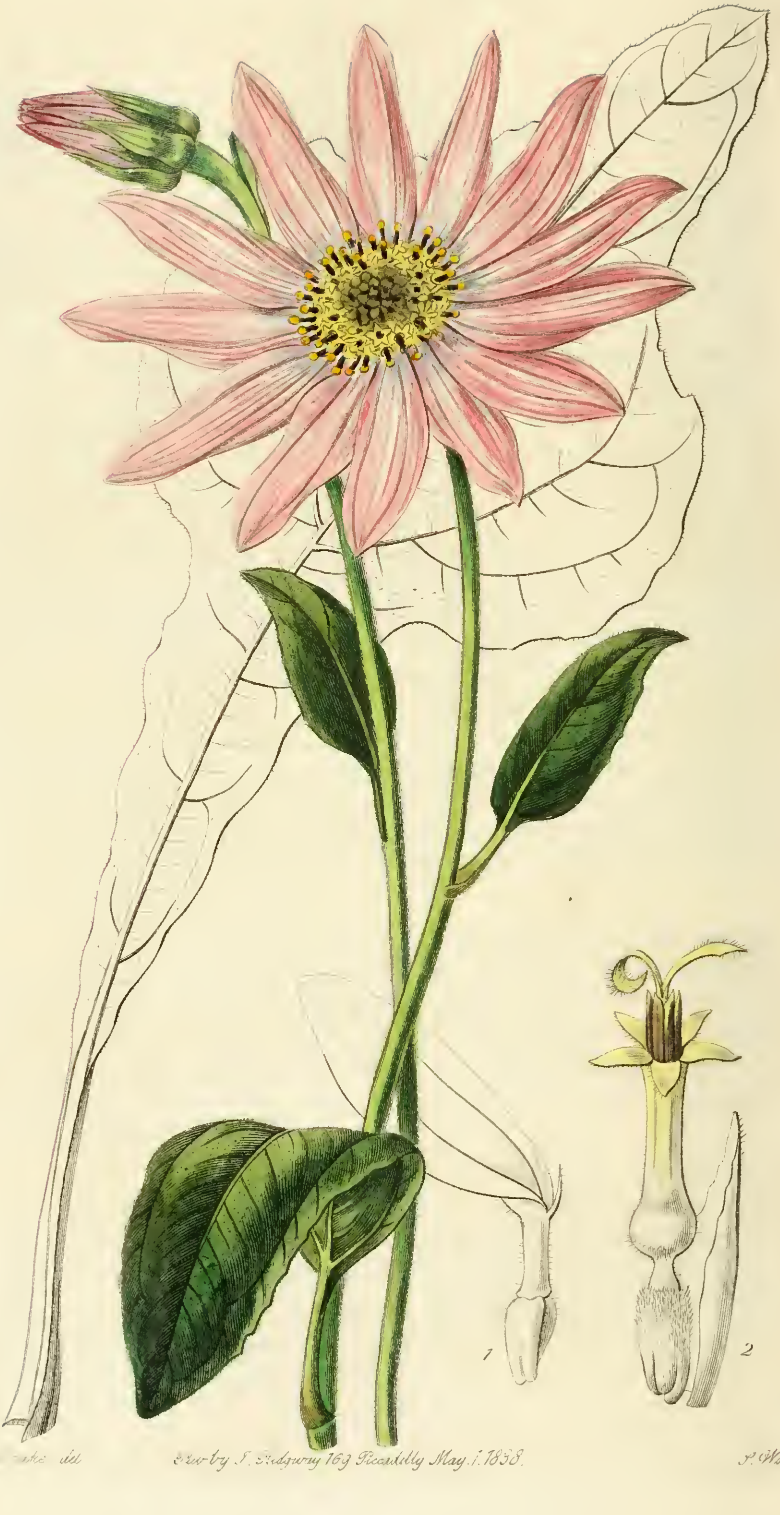
* See Bot. Reg. vol. 17. fol. 1415.

" *Pseudo-bulbs*, when young, round and slender, one inch and a half long, gradually swelling at the base as they get old, and diminishing from it upwards ; sometimes surmounted by *three* narrow, thinnish, rigid *leaves*, but more frequently, to judge from the original specimens, by only *one* flat, oblong-lanceolate leaf, from three to five inches in length, and a quarter of an inch in breadth, nearly upright, or but slightly curved towards the point. *Scape* about half the length of the leaves, slender, somewhat angular, and curved, three-flowered, with a small acuminate bractea to each. *Pedicels* three-angled, seldom exceeding one-fourth of an inch in length. *Sepals* spreading, concave, roundish oblong, of a dingy brown outside, becoming paler towards the point, which is acute and of a deep green colour ; they are each about one-fourth of an inch long, and one-eighth broad, except the two inner divisions which are rather smaller than the others ; the inside is of a pale brownish green. *Labellum* three-lobed, nearly white, or a very pale yellow ; the middle lobe the smallest ; the other two rise nearly upright, so as to embrace the column, which is triangular, and about the length of the sepals, green at the base, becoming of a pale yellow as it thickens outwardly, and having a small projecting acute point.

" In cultivating this species, and others of a like nature which grow on the trunks of trees in their native country, I have found nothing equal to tying them, by means of a piece of small copper wire, to the branches of an old *apple* or *pear tree*, sufficiently large to protect them from the scorching heat of the sun, covering them with moss, and keeping them in a close, moist stove."

Fig. 1. is a magnified view of the front of the column, with the labellum, &c. cut away ; it shews the three teeth of the column, and the curious fringed anther-bed within them ; fig. 2. is a view of the upper part of the labellum ; fig. 3. is a transverse section of the ovary, shewing the position of the three flattened wings that cover its sides ; fig. 4. represents the pollen-masses.



[illegible] del.   Pub by J. Ridgway 169 Piccadilly May 1. 1838.   S. Watts sc.

* ECHINĀCĔĂ Dicksōnī.

Mr. Dickson's Echinacea.

SYNGENESIA *POLYGAMIA.*

Nat. ord. Asteraceæ, § Senecionideæ.

ECHINACEA. *Mœnch.* *Capitulum* multiflorum, heterogamum; flosculis radii neutris longè ligulatis 1-serialibus, disci hermaphroditis regulariter 5-fidis, tubo subnullo, fauce nudâ, limbi dentibus erectis. *Involucrum* 3-seriale, squamis lanceolatis, ciliatis. *Receptaculum* ovatum, paleis rigidis supernè cartilagineis flores disci superantibus onustum. *Staminum* filamenta ex imâ corollâ orta. *Styli* rami appendiculis semilanceolatis superati. *Achænia* tetragona, obpyramidata, crassa; *pappo* irregulariter lacero subcoroniformi deciduo coronata. *DC. prodr.* v. 554.

E. *Dicksoni;* scabriuscula, pilosa, foliis radicalibus panduratis subtrilobis in petiolum longè productis subdentatis caulinis ovato-lanceolatis, paleis flosculis brevioribus.

This plant was raised in the garden of the Horticultural Society from Mexican seeds, from the *Tierra fria*, presented by George Frederick Dickson, Esq. It is nearly related to *E. heterophylla*, but is a much prettier species, without the coarse viscid hairs that clothe all the green parts of that plant.

It recedes from the character of the genus in not having any discoverable pappus, and in the scales of the receptacle neither being rigid nor projecting beyond the florets of the disk.

It is a very showy perennial, growing about a foot high, has dark-brown spindle-shaped roots, and is probably hardy enough to endure an ordinary winter in the open border, but it is better to take up the roots after flowering in the autumn, and either to pot them or place them in a box of dry sand or mould during winter, secured from frost and damp.

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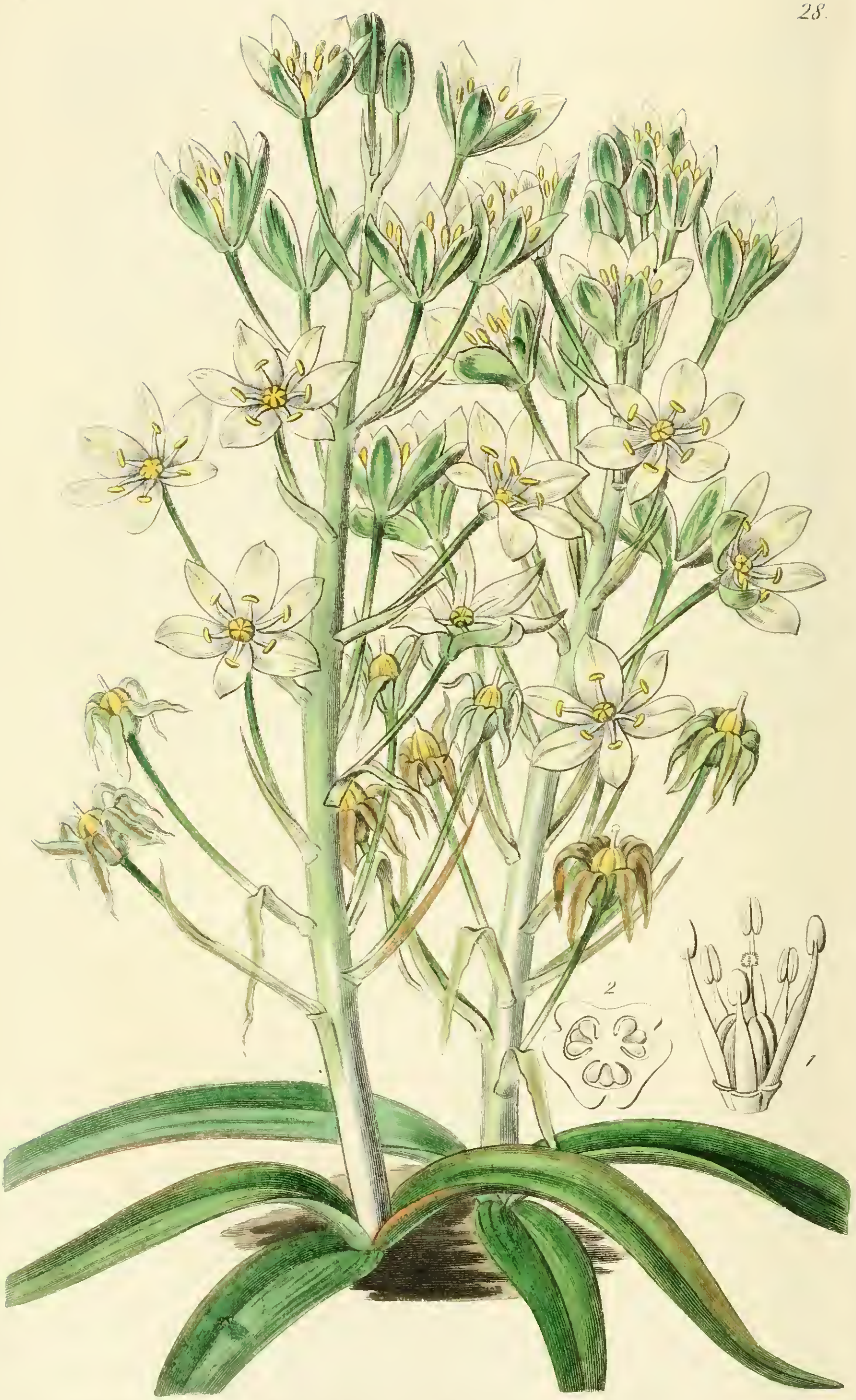
* A very objectionable name, formed from the adjective *echinaceus* bristly, in allusion to the sharp points of the scales of the receptacle which bristle over the centre of the flower-heads of some species.

The plant flowers from the middle of August to the end of September in any good soil, particularly if a little peat and sand be added. Like many Mexican Compositæ it flowers so late that it seldom ripens seeds in the open border, but a few plants kept in the green-house will do so ; it is only by seeds that the species can be increased with any certainty.

The seeds should be sown about the end of March in rich soil, on a nearly exhausted hot-bed, and treated like those of half-hardy perennials ; keeping them in pots the first season, as they will not flower before the second year. The seedlings must not be planted out in the open border before the middle of May.

Fig. 1. is a floret of the ray with a nearly smooth achænium, and a tooth-like lobe proceeding from the inner edge of the mouth of the tube. Fig. 2. is a floret of the disk, with a scale of the receptacle; the former has a tomentose ovary, and a corolla whose tube is contracted just above the base, and then ventricose above the contraction.



Pub. by J. Ridgway 169 Piccadilly May. 1838

S. Watts sc.

* ORNITHŎGĂLŪM montānūm.

Mountain Ornithogalum.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Liliaceæ.
ORNITHOGALUM. Bot. Reg. vol. 2. *fol.* 158.

O. *montanum;* bulbo solido simplici, foliis (3-5 lin. latis) lato-linearibus planiusculis patulis apice distortis, floribus corymbosis, petalis lineari-lanceolatis. *Gusson. prodr. fl. sic.* 1. 413. *Röm. et Schult. syst. veg.* vii. 531. 1701.
O. montanum *Tenor. fl. neapol. p.* 176. *t.* 33. *synops.* 172.
O. patulum. *Rafin. in Desv. Journ. bot.* 4. 271.

A hardy bulbous plant, for which I have to thank the Hon. W. F. Strangways, who has several times sent it from the choice collection at Abbotsbury. It flowers in the latter end of May and June.

According to Signor Gussone it is a common plant, every where, in the mountain pastures of Sicily, flowering in April and May. Professor Tenore finds it in the kingdom of Naples, on the mountains of the Abruzzi, Calabria, and elsewhere.

According to the last mentioned Botanist it differs from *O. garganicum*, in its leaves never being ciliated, its more corymbose flowers, spreading peduncles, and flowers green externally, with the edge only of the segments white. Bertoloni distinguishes it from *O. umbellatum* by the bulbs of that species being proliferous, the leaves altogether linear, channelled and longer than the scape, and by O. umbellatum being altogether a larger plant. Balbis compares it with *O. comosum*, from which he finds it differ in its flatter leaves, longer raceme, bracts shorter than the pedicels, and acute petals. Finally Gussone contrasts it with O. *collinum*, *exscapum*, and *tenuifolium*, from which he makes it differ in having leaves 3-4 lines broad, white edged flowers, petals smaller than the sepals and acute, scarious acute bracts, and oblong six-furrowed capsules.

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* See Bot. Reg. vol. 22. fol. 1853.

Fig. 1. shews the stamens and ovary magnified, the sepals and petals being removed. Fig. 2. is a transverse section of the ovary, exhibiting the deeply-furrowed angles.

A hardy bulbous plant, growing best in rich sandy loam, particularly if kept rather dry in winter, and freely supplied with water during the growing season.

It may either be increased by seeds, or offsets from the old roots. The seeds should be sown in pans of rich loam directly the seeds are ripe, after which they require no more care, except being kept clear and watered, until the second season. They should not be disturbed at the end of the first season, for the young bulbs are so small, that they are apt to perish and be lost in the soil if removed.

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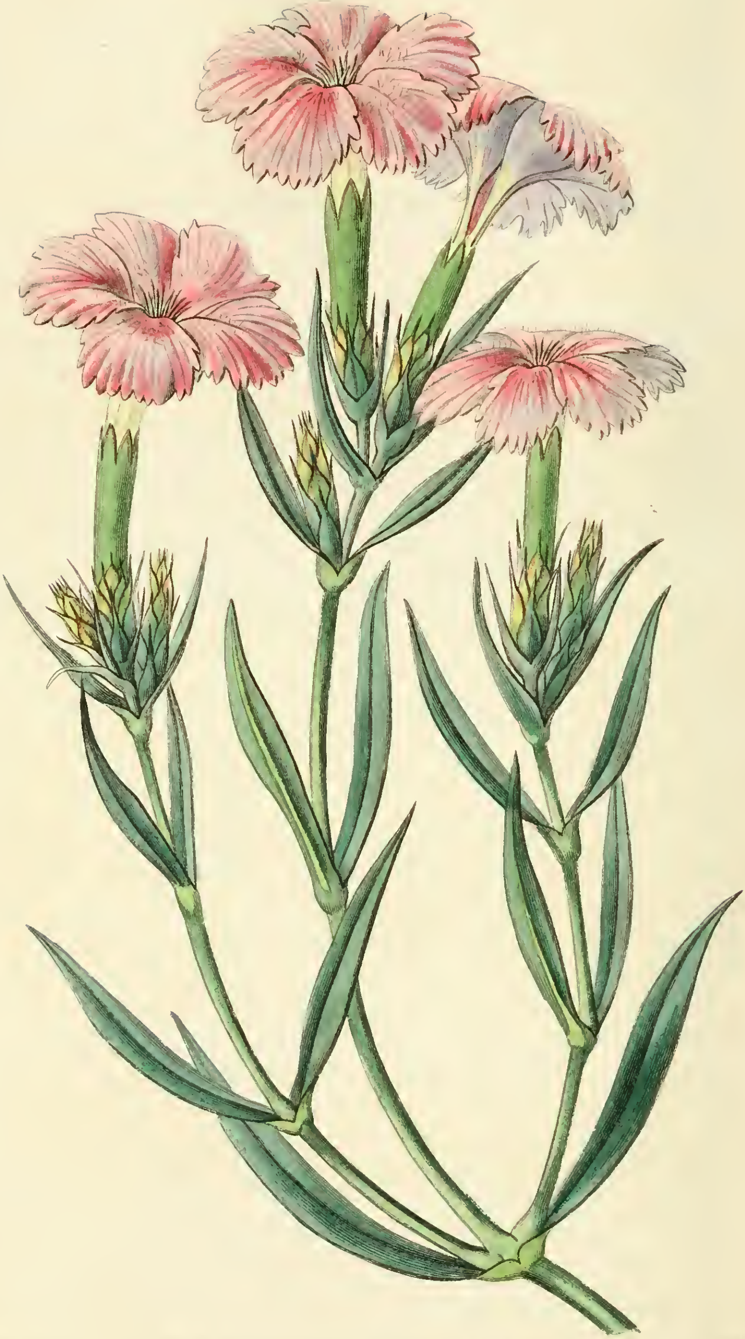

[illegible] del. Pub. by J. Ridgway 169 Piccadilly June. 1830. S. Watts sc.

* DIĂNTHŬS Bisignānī.

Prince Bisignano's Tree Pink.

DECANDRIA *TRIGYNIA.*

Nat. ord. SILENACEÆ.
DIANTHUS. Bot. Reg. vol. 13. *fol.* 1068.

D. *Bisignani ;* floribus aggregato-fasciculatis, squamis calycinis 4-fariàm imbricatis interioribus brevioribus margine ciliatis cuspidatis exterioribus setaceo-subulatis, foliis erectiusculis linearibus semiteretibus integerrimis glabris glaucescentibus. *Tenore syllog.* 206.

D. Bisignani. *Tenor. fl. nap.* 1. 228. *t.* 37. *Gusson. prodr. fl. sic.* 1. 494. *pl. var.* 169. *Rchb. pl. crit. cent.* 6. *p.* 23. *t.* 591. *f.* 180. ex Tenore.

A beautiful half-hardy shrubby pink, communicated in September last, from the garden at Abbotsbury, by the Hon. W. F. Strangways, to whom I am obliged for the following memorandum.

" This Dianthus is a native of the coasts of Calabria and Sicily. It is allied to D. fruticosus Fl. Græca, from which it differs in its sharper leaves, and more imbricated calyx. Unlike most maritime plants, it is less glaucous in its wild state than in cultivation. It is common on rocks about Palermo, with Silene fruticosa. It flowers late, is best kept in the greenhouse, and is not easily raised from seed. D. Bisignani, fruticosus, arboreus, rupicola, and one called suffruticosus by the Germans, require further examination to fix their characters.

Tenore found it at Palinuro and Molpa, in the kingdom of Naples, and at Bagnara and Scilla, in Calabria, on cliffs next the sea. Gussone speaks of it as inhabiting fissures in the chalk cliffs of Sicily, flowering from June to August.

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* See Bot. Reg. vol. 18. fol. 1548.

This, like all the shrubby species of Dianthus, is an extremely desirable plant, but it is difficult to preserve through the winter in the colder parts of England, unless it is treated carefully as a greenhouse plant.

The succulent character of the leaves spoken of by the Italian Botanists, disappears very much in this, as well as in D. fruticosus, under cultivation.

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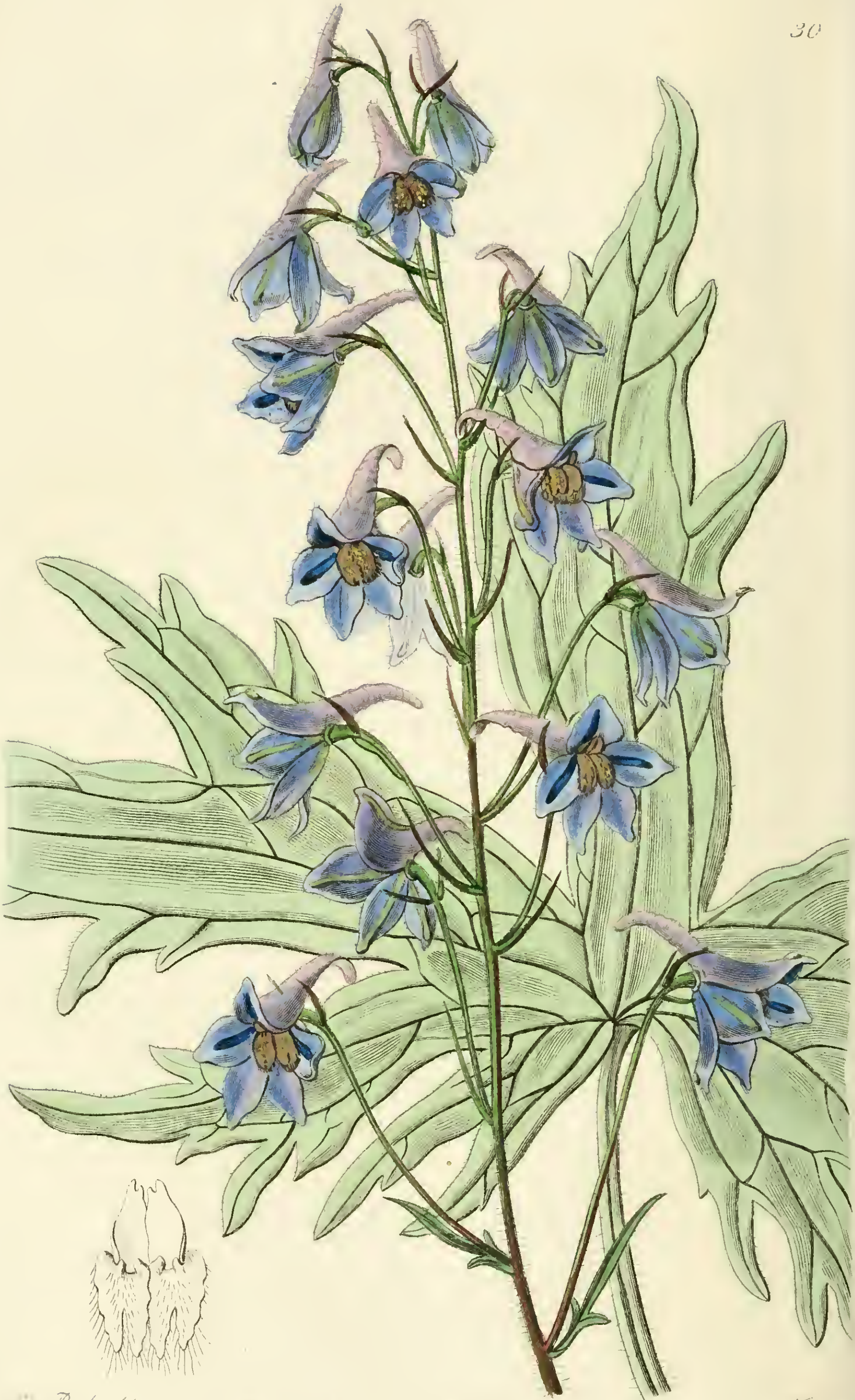

Miss Drake del.

Pub by J. Ridgway 169 Piccadilly June 1. 1838

S Watts sc.

* DELPHĪNĬŪM laxiflórūm.

Loose-flowered Larkspur.

POLYANDRIA *TRIGYNIA.*

Nat. ord. Ranunculaceæ.
DELPHINIUM. Bot. Reg. vol. 14. *fol.* 1192.

D. *laxiflorum ;* petiolis basi non dilatatis, foliis 3-7-lobatis, lobis oblongis acutis inciso-pinnatifidis superioribus subtripartitis, lobis angustis integris, racemo laxo ramoso, bracteolis ovariisque pubescentibus. *DC. prodr.* 1. 55. *syst.* 1. 360.

This I conceive is what M. DeCandolle intends by *D. laxiflorum*, which he says differs from *D. montanum* in having a loose branched raceme, smaller bracts, oval not oblong sepals, and the stem not velvety but covered with spreading hairs. It is very different from what is called by this name in the gardens, which is usually one of the many varieties of *D. intermedium.*

Independently of the downy flowers, flower-stalks and ovaries, the leaves of this are remarkable. They are cordate, deeply 3- or 5-lobed, generally the former, with the lobes divided into a few long finger-like crooked segments, or slashes. The colour of the flowers is a bright and very clear but not deep blue, a little tinged with pink outside. Common report gives it to Siberia for its native country, but this locality is at least apocryphal.

It is a hardy perennial, growing 4 or 5 feet high in any good garden soil, and well adapted for planting in the shrubbery ; flowers in June. It may be increased freely either by seeds or divisions of the old root. The seeds should be sown about the end of May in a bed in the open ground; they require no other trouble than that of keeping the plants clean until the following spring, when they will be fit to plant where they are to remain. The young seedlings will flower the first season after planting, but not in perfection before the second.

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* See Bot. Reg. vol. 22. fol. 1503.

Piccadilly Jun. 1838

Watts

* ECHINOCĀCTŬS Eyriēsĭi, *var.* glaucus.

Glaucous Sweet-scented Porcupine Cactus.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. Cactaceæ.
ECHINOCACTUS. *Bot. Reg. vol.* 20. *fol.* 1707.

E. Eyriesii. *Supra l. c.*
Var. *glaucus;* angulis acutioribus, spinis magis fuscis et tenuioribus, tubo calycis viridi glabriusculo.

There is a specimen of this pretty plant in the garden of the Horticultural Society, but its origin is not known. It is very similar to the E. Eyriesii figured in the 20th volume of this work, fol. 1707; but differs in having the angles much more acute and less wavy; the spines are longer, more slender, and rather browner, and the tube of the flower is shorter, green, and free from the long coarse ash-coloured shagginess which distinguishes the original species.

There seems to be no trace of it in the works of continental writers. It is not mentioned in the recent catalogue of Dr. Louis Pfeiffer, nor do I succeed in referring it to any species mentioned in the writings of more technical botanists. The flowers are sweet-scented, and appear in July.

The division of Cactaceæ to which this belongs should be treated in a somewhat different manner from the more common kinds. The soil should neither be very rich nor retentive of moisture; broken bricks or lime-rubbish, mixed with a little leaf-mould, answers the purpose very well. Water should never be given over-head, because in that case it collects in the hollow cavity on the top, and rots the centre of the plant; and it should not be given at all, except when an inclination for growth is manifested.

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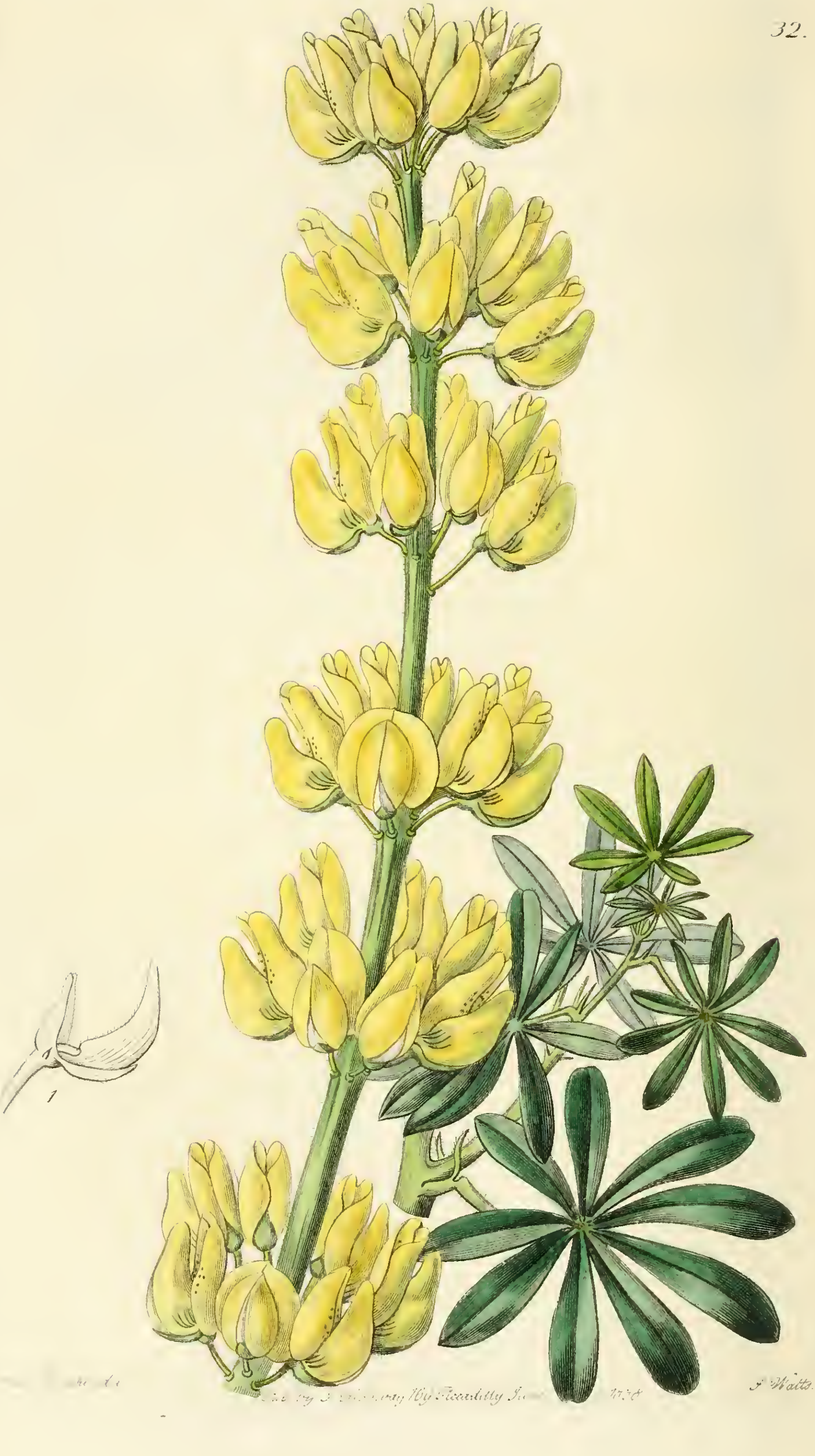
* See Bot. Reg. vol. xx. fol. 1707.

This variety seldom throws out young shoots, and consequently does not increase rapidly; but if young plants are of more value than a large specimen, it may be cut across, when the top may be grafted or struck, and the under part will send out young shoots. When seeds can be procured they should be sown in silver sand, and placed in a warm and shaded situation, where they will soon vegetate.

32.



Miss Drake del. Pub. by J. Ridgway 169 Piccadilly June 1. 1838 J. Watts sc.

* LUPĪNŬS arbŏrĕŭs.

Tree Lupine.

DIADELPHIA *DECANDRIA.*

Nat. ord. FABACEÆ or LEGUMINOSÆ, § PAPILIONACEÆ.
LUPINUS. Bot. Reg. vol. 13. *fol.* 1096.

L. *arboreus;* caule suffrutescente decumbente nitido subglabro, foliolis 7-9 lineari-obovatis acuminatis longitudine petioli, stipulis subfalcatis, racemo elongato laxifloro, floribus subverticillatis flavis, calycis profundè bilabiati ebracteolati labiis subintegris. *Agardh. synops. lupin.* 25. *no.* 42.
L. arboreus. *Bot. mag. t.* 682. *DC. prodr.* 2. 409.

One of the first of the Tree Lupines raised in this country, and if well grown one of the finest. It grows eight or nine feet high, and forms a stout woody stem, which will live over mild winters, and becomes the second year a very beautiful object.

There are many varieties in the gardens, one of the prettiest of which is that now figured from a seedling plant raised by the Earl of Mountnorris at Arley Hall. It produces a great profusion of clear pale yellow flowers arranged in upright whorled racemes.

This species is said in books to be a native of South America, I know not upon what authority. It is probably a mistake, for Mr. Douglas found it in California, and the seeds from which Lord Mountnorris's plants were raised were obtained from the same country.

A tolerably hardy shrub, but not sufficiently so to endure the past severe winter, as all the plants in the gardens near London are killed even against a south wall, where they had stood several years. It covers a large space; flowers a great part of summer, and ripens plenty of seeds, from which plants may be raised at any time from February till October. The young plants should be protected in a pit or frame for the first winter. The plant will last for several years if trained against a wall, but will not last more than two or three years if planted in the open border, therefore young plants should be raised every two or three years from seeds.

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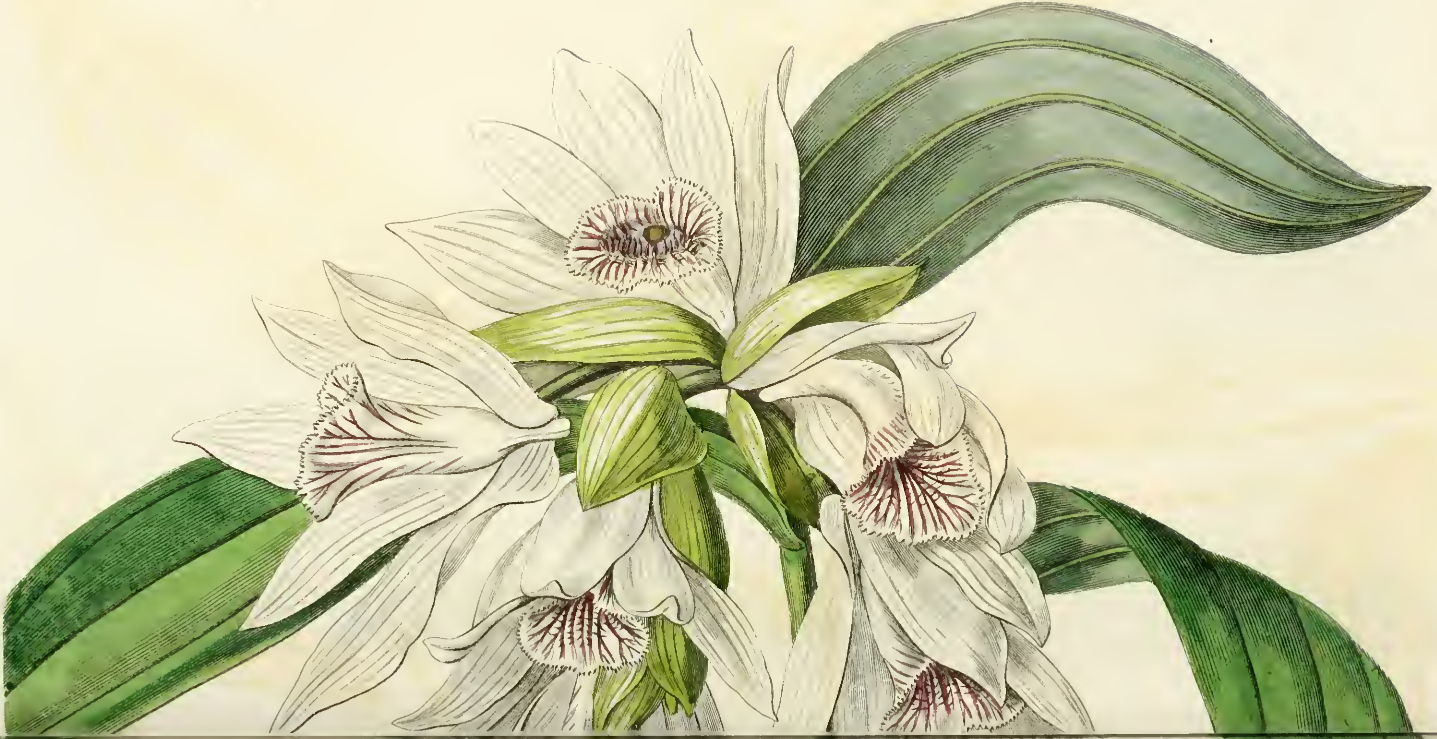
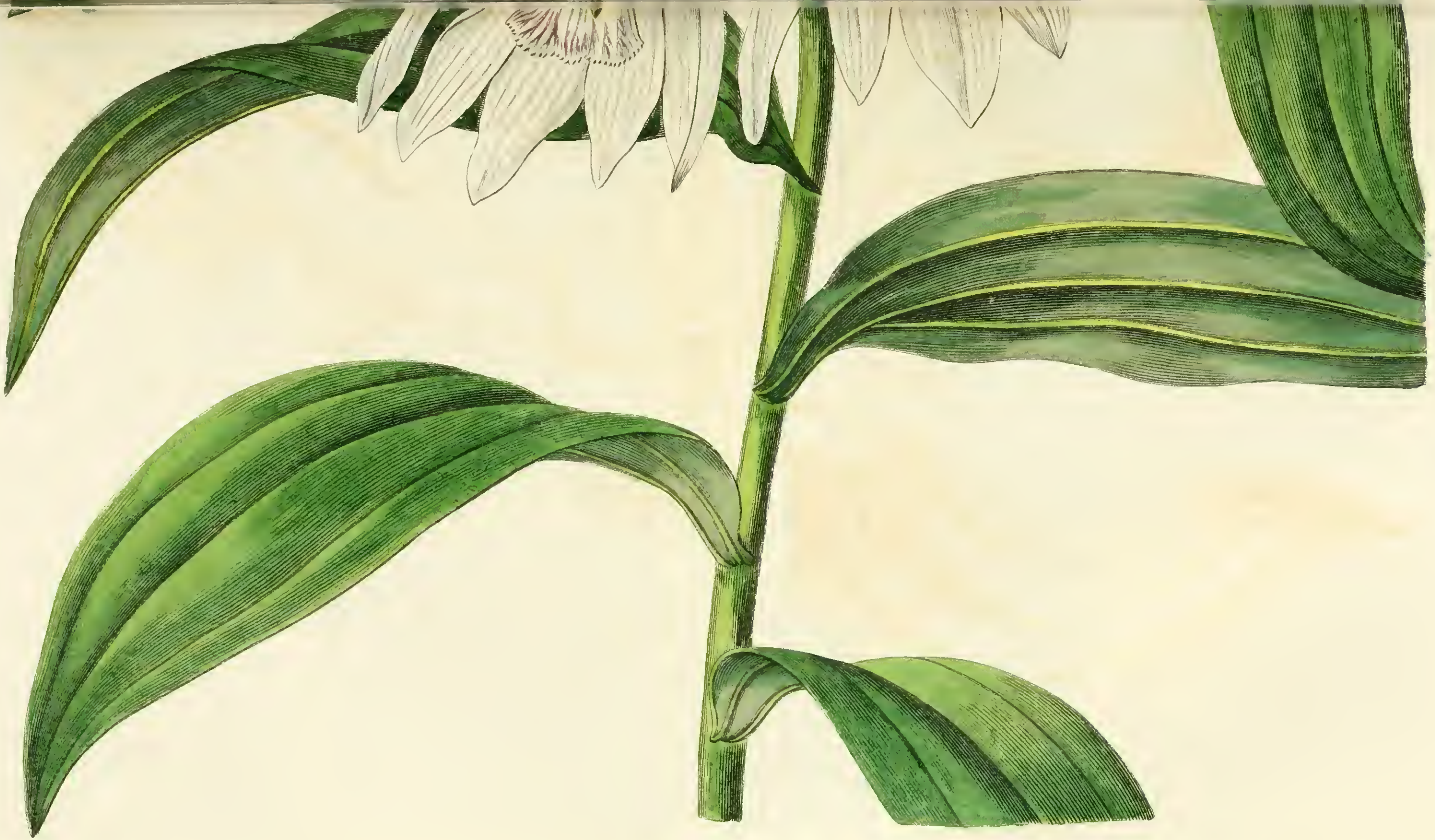
* See Bot. Reg. vol. 14. fol. 1198.





Miss Drake del

Pub by J. Ridgway 169 Piccadilly Jan 1 1838.

J. Watts sc

* PHĀIŬS ālbŭs.

White Phaius.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.

PHAIUS. Lour. Sepala et *petala* subæqualia, patentia, libera. *Labellum* sæpiùs cucullatum, cum basi columnæ adnatum, calcaratum, integrum v. trilobum, sæpiùs supra carinatum lamellosum v. cristatum. *Columna* erecta, cum ovario continua, semiteres, marginata, elongata. *Anthera* 8-locularis. *Pollinia* 8, subæqualia.——Herbæ *terrestres* (Asiaticæ), *caulescentes v. acaules,* foliis *latis plicatis.* Scapi *radicales.* Flores *speciosi.* Gen. & sp. orch. 126.

P. *albus;* caulescens, foliis oblongo-lanceolatis acutis subtùs glaucis, sepalis petalisque oblongo-lanceolatis acutis subæqualibus, labello oblongo cucullato denticulato apice rotundato: disco 5-cristato, calcare rectiusculo emarginato (bracteis cucullatis herbaceis persistentibus imbricatis floribus æqualibus). *Lindl. in Wallich plant. as. rar.* 2. *t.* 198. *gen. et sp. orch.* 128.

This lovely plant was originally found by Dr. Wallich upon Mount Chandaghiry in Nepal, growing on trees; and subsequently it was sent down from the frontiers of Silhet by Francis de Silva, a collector in the pay of the Botanic Garden, Calcutta. From drawings made in that establishment, the figure in the Plantæ asiaticæ rariores was taken; but it must be confessed that it does not give a stranger a correct idea of the beauty of the original, which ranks among the most showy of the order. So indeed do all the species of Phaius, if well grown; the finest of which, P. bicolor, a native of Ceylon, with yellow and pink flowers, is still to introduce.

In some respects the plant now figured, and that of Dr. Wallich, are apparently so different, that some doubt might be entertained about their identity, if it were not for dried specimens in my collection, which place the question beyond all doubt. There was no sign of the yellow colour, which is so conspicuous a mark of the labellum in the Indian drawing, the pink veins were much deeper, and the flowers were arranged in a dense, imbricated, nodding, many-flowered raceme.

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* From φαιὸς brown, in allusion to the colour of the original species.

In a young state the plant is very remarkable for the light blue appearance of all its parts, and for the broad, round, amplexicaul, scale-like leaves which appear upon the stem when it first begins to lengthen.

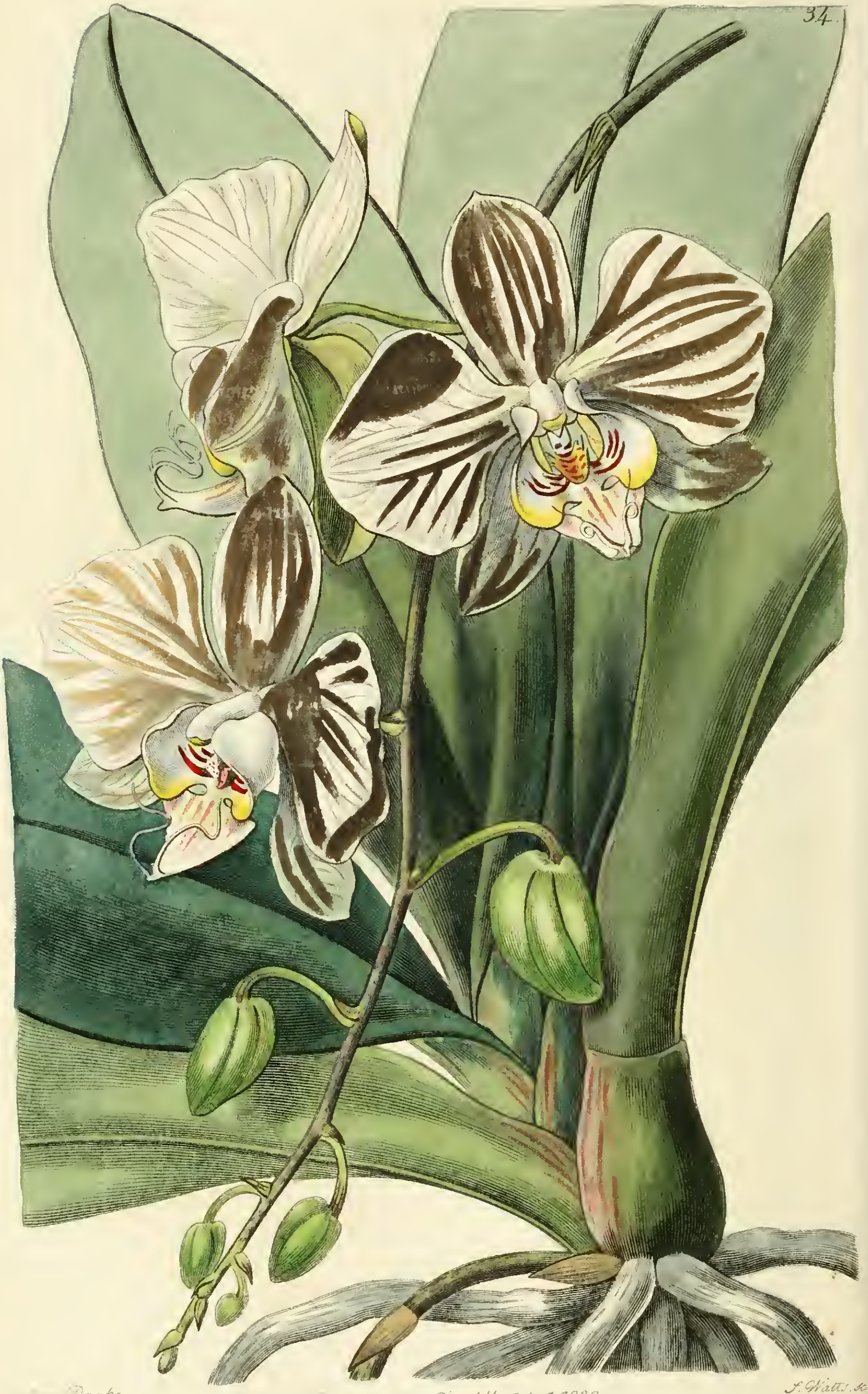
The accompanying drawing was made at Messrs. Loddiges in July 1837.

It requires to be grown in a moist stove, or orchidaceous house, which is always shaded during bright sunshine in summer, otherwise the leaves will become yellow and have a sickly appearance.

The pots into which it is put must be well drained, in order to carry off superfluous moisture. The best soil is a rich brown peat, well chopped up and mixed with some substance which will keep it open, and allow the water to pass freely through ; clean cinders or broken pots answer the purpose very well. It will bear a free supply of water during the growing season, and may then be syringed once or twice every day ; but late in autumn, or during the dull weather in winter, very little water is required, the object at that season being to keep the plant as torpid as possible.

The best season for dividing it for purposes of propagation is in spring, just before it begins to grow.

34.



Drake

Pub by J. Ridgway 169. Piccadilly July 1. 1838.

J. Watts sc.

* PHALÆNŌPSĬS amābĭlĭs.

The Indian Butterfly-plant.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.

PHALÆNOPSIS. Blume. Perianthium explanatum, patens, sepalis liberis, petalis majoribus dilatatis. *Labellum* cum basi paulò productâ columnæ connatum, liberum, basi callosum, trilobum; lobis lateralibus ascendentibus petaloideis, intermedio angustiore bicirrhoso. *Columna* in ovarium recumbens, semiteres, rostello gladiato. *Anthera* bilocularis. *Pollinia* 2, subglobosa, caudiculâ planâ spathulatâ, glandulâ maximâ cordatâ.——Herba *epiphyta.* Caules *radicantes, simplices.* Folia *rigida, lato-lanceolata, apice obliquè retusa.* Flores *paniculati.* Gen. et Sp. Orch. 213.

P. amabilis. *Blume bijdragen* 294. *tabellen* 44. *Lindl. gen. et sp. orch.* 213.
Epidendrum amabile. *Linn. sp. pl.* 1351.
Angræcum album majus. *Rumph. herb. amboin. vol.* 6. *p.* 99. *t.* 43.

This very rare and beautiful epiphyte flowered a few weeks since in the Epiphyte-house of Messrs. Rollissons of Tooting, I believe for the first time in Europe. It had been sent to them from Manilla by Mr. Cuming.

The curious form of the flowers, the graceful way in which they hang down from below the leaves, their large size, and the brilliant whiteness of their broad leathery petals give this species a most striking and uncommon appearance.

Dr. Blume met with it on the wooded coast of Nusa Kambanga. Rumph, who first noticed it, speaks of its growing in Amboyna, on short thick trees, covered with moss, up which, he says, it turns like a rope, and from which it hangs

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[*] From φάλαινα a moth, and οψις resemblance.

July, 1838.

down in entangled tufts. He mentions a variety whose petals are a deep rich purple on the outside.

The Dutch Colonists, in the Malayan Archipelago, call this plant the *Vliegende Duive;* the Malays themselves *Angrec poeti besaar*, *Bombo terbang*, *Angrec colan*, and *Wanlecu.*

It belongs to that class of Orchidaceous plants which succeed best when fixed to pieces of wood, along with a little turf or moss, and suspended from the roof or pillars of the stove. It grows very well in this manner in the Orchidaceous-house at Tooting, which is kept saturated with moisture, and scarcely ever receives any air. The wood on which it is fixed should either be covered with rough bark, or be in a decaying state, to enable the roots to fix themselves to it; it may be a foot or eighteen inches in height, and four or five inches in diameter. The plant does not appear to throw out side shoots freely, and consequently will be difficult to propagate.

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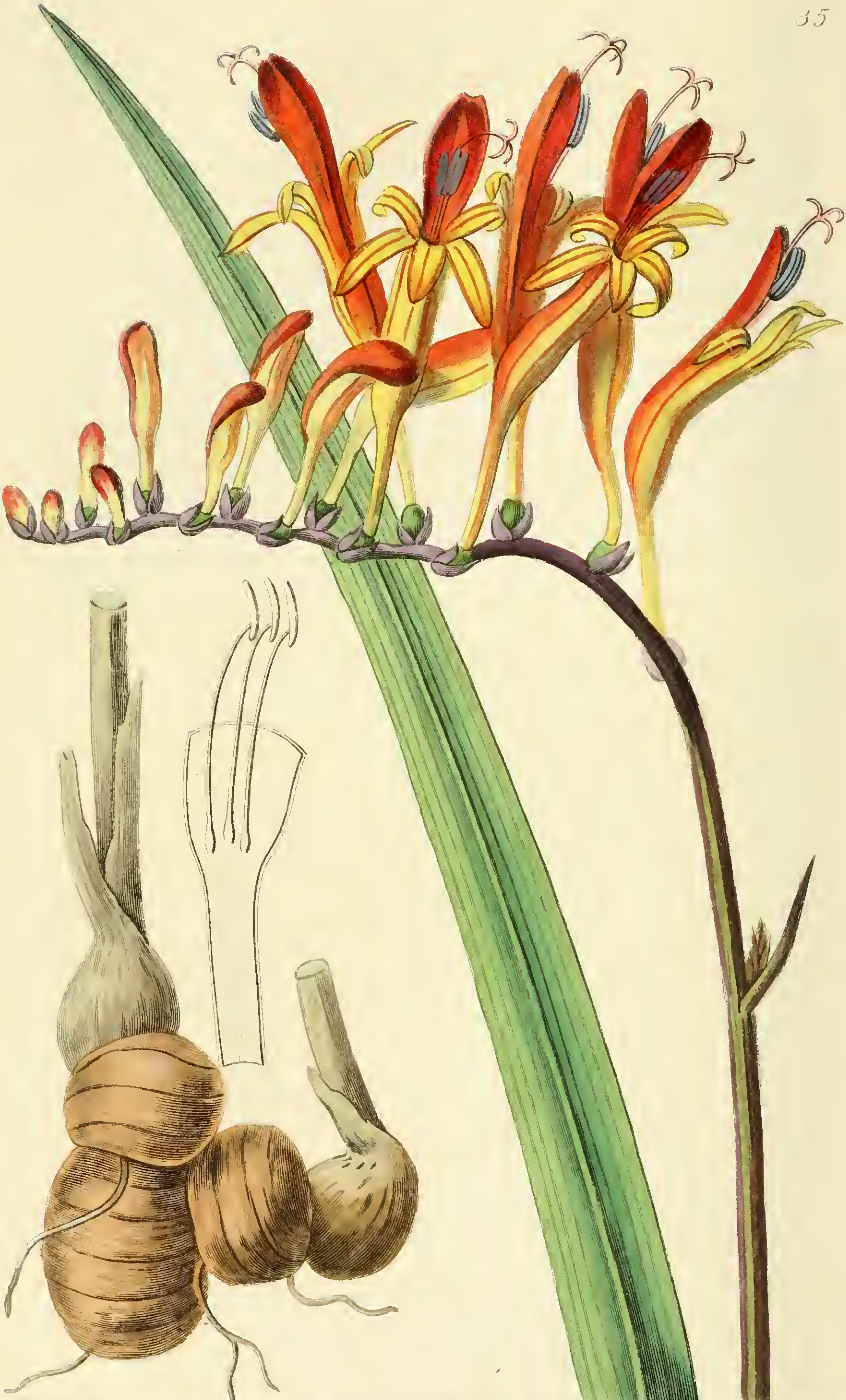

Pub by J. Ridgway 169 Piccadilly Aug 1 18[illegible]

* TRITŌNĬĂ fucātă.

Painted Tritonia.

TRIANDRIA *MONOGYNIA.*

Nat. ord. Iridaceæ.
TRITONIA. Bot. Reg. vol. 2. *fol.* 135.

T. *fucata;* spicis secundis decurvis floribus erectis, perianthio clavato sursùm ventricoso arcuato bilabiato, labio superiore oblongo bidentato subfornicato inferiore 5-partito recurvo laciniis linearibus obtusis æqualibus.

I am acquainted with this very remarkable plant through a drawing communicated in August 1837, with the following note by the Hon. and Rev. W. Herbert.

" I received the bulbs from the Cape of Good Hope, about twenty-five years ago. They multiplied rapidly, and, some having been left out in the open ground, they proved to be perfectly hardy, thriving equally in peat, and in the common soil of the garden, and there were so many large bunches of it at last in my garden, that hundreds of the bulbs have been dug up and purposely destroyed. Till now it has never flowered with me, nor with those amongst whom I had distributed part of the increase. At the end of last autumn it occurred to me to have dung laid on the patches which were growing in the garden soil, and the result has been the production of a flower-stem this summer. I doubt not that manure is the requisite to make it flower freely. It appears to agree in structure with Tritonia refracta of the Bot. Register, though very different in many respects. The obsolete bulbs continue, like those of Tritonia lineata, for many years without decaying, and form a chain on one side of the new bulb. The leaves are about two feet, or two and a half high, the flowers surmounting them. The flowers are durable, the spike lasting, from the beginning to the end of its flowering, about a month."

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* So named by Mr. Ker from Triton a vane or weathercock, in allusion to the variableness of the species of this genus, as regards the direction of their anthers.

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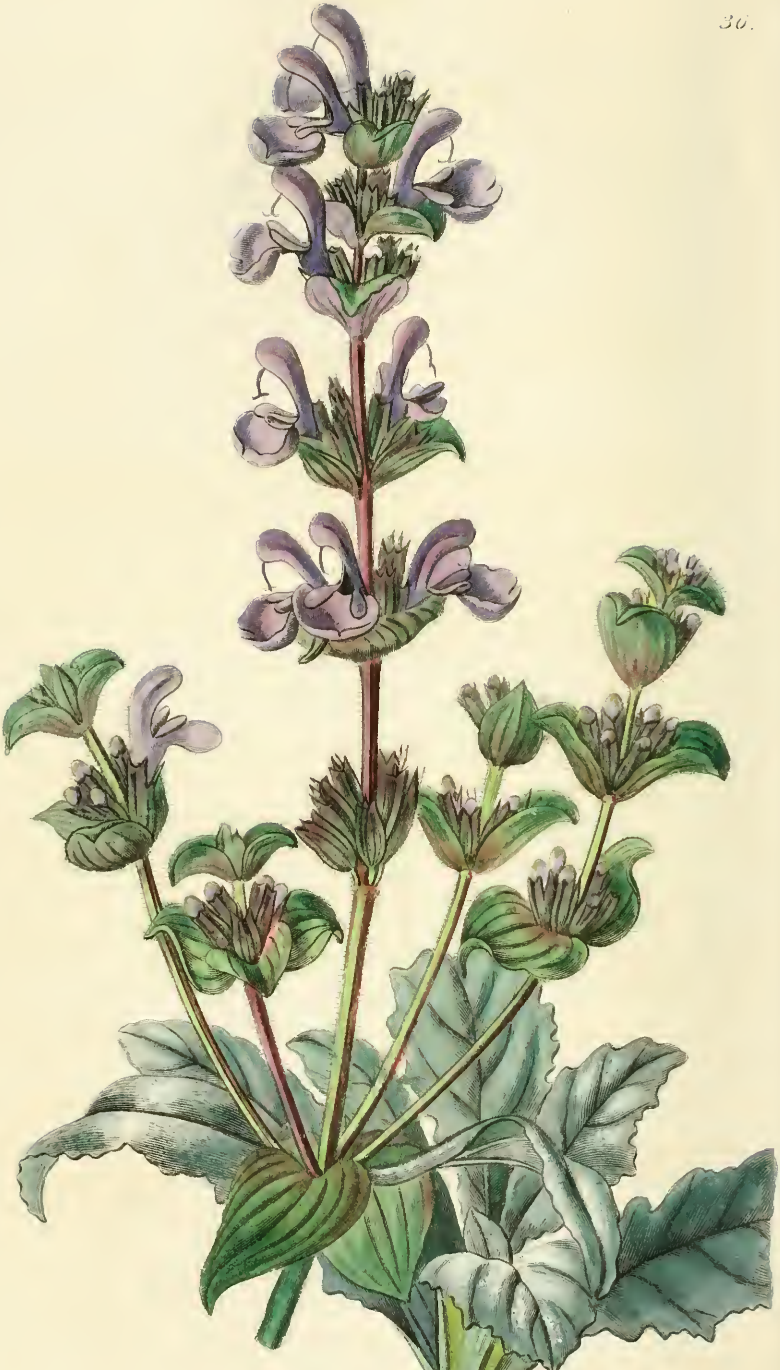

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* SĀLVĬĂ canēscēns.

Hoary Sage.

DIANDRIA *MONOGYNIA.*

Nat. ord. LAMIACEÆ, or LABIATÆ.
SALVIA. Botanical Register, vol. 18. *fol.* 1554.

S. *canescens ;* caule herbaceo basi albo-lanato, foliis lanceolato-oblongis integris vel sinuato-lobatis basi longè angustatis rugosis suprà laxè subtùs densè albo-lanatis, floralibus latissimis acuminatis concavis persistentibus calyce subbrevioribus, racemis ramosis villoso-viscosis, verticillastris remotis, calycibus tubuloso-campanulatis, labio superiore truncato breviter dentato inferioribus dentibus lanceolatis acuminatis, corollis calyce subtriplò longioribus, tubo breviter exserto, labio superiore subfalcato. *Benth. labiat.* 718.
S. canescens. *Meyer enum. pl. cauc. casp.* 86.

A very pretty hardy herbaceous plant, inhabiting rocks in that range of Caucasus which runs into the west of the Caspian sea. Professor C. A. Meyer found it on the banks of the river Anticeta, and about the mineral spring of Narzana.

The leaves are covered with whitish wool, but the flower-stem, bracts, and calyxes, instead of wool, bear a quantity of green hair and viscid glands. The flowers are of a fine deep purple.

Mr. Bentham regards the species as being very near Salvia phlomoides.

It was raised in the garden of the Horticultural Society from seeds received from Dr. Ledebour of Dorpat, and is found to be a hardy perennial, growing from one to two feet high, in any good garden soil, and well adapted for planting on rockwork.

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* See Bot. Reg. fol. 1205.

It flowers about the end of June, and may be increased freely by seeds or cuttings. The seeds should be sown about the middle of May in pots, and the young plants, when large enough, potted and kept in a cold frame the first winter; they will not flower before the second season.

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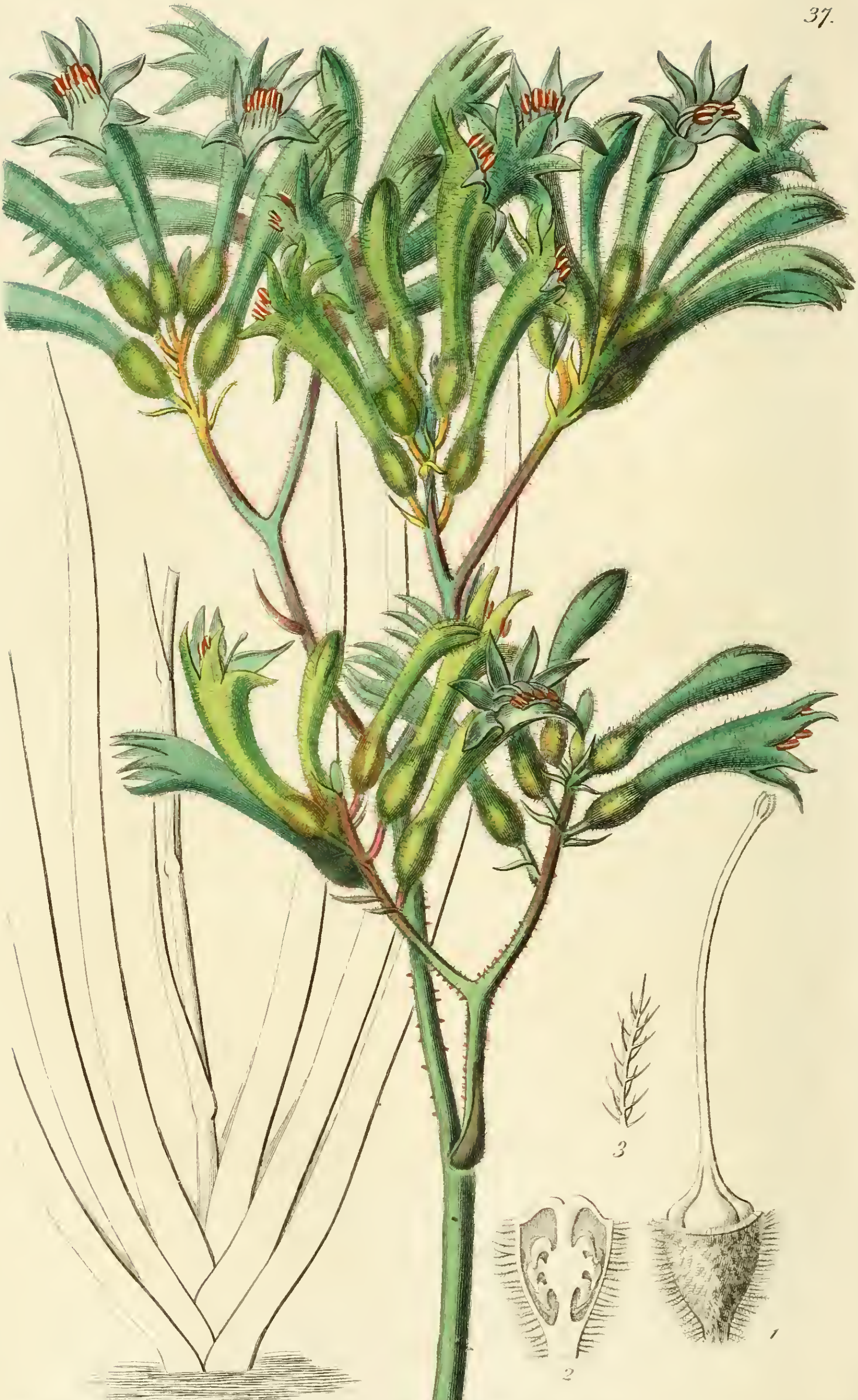

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* ANIGOZĀNTHŬS flāvĭdă.

Yellow-haired Anigozanthus.

HEXANDRIA *MONOGYNIA.*

Nat. ord. Hæmodoraceæ.
ANIGOZANTHUS. Bot. Reg. vol. 23. *fol.* 2012.

A. *flavida;* caule foliisque glaberrimis, paniculæ rigidæ ramis tomento deciduo vestitis, perianthii limbo subæqualiter patente, antheris apiculo reflexo.
A. flavida. *Redout. liliac.* 176. *Bot. Mag. t.* 1151. *Römer et Schultes syst. veg.* 7. 283.
Schwägrichenia flavida. *Spreng. syst. veg.* 2. 26.

Caulis *sesquipedalis, apice ramosus, tomento deciduo flavescente viridi vel purpureo vestitus.* Tomentum *florum viridi-luteum, pilis quibusdam purpureis intermixtis.* Gynæceum *ferè ut in* A. Manglesii; *sed ovarium apice liberum, et ovula pauciora.*

This species was along ago introduced into our gardens from the South Coast of New Holland, where it appears to be of common occurrence; nevertheless we seldom see it, although a fine showy plant and of very curious structure.

That form of the species which is here represented, is not precisely the same as what is generally cultivated, and inhabits a rather different country; having been obtained from the Swan River Colony by Robert Mangles, Esq. It is of more robust growth, and instead of being whole-coloured it has a dash of brown-purple on the upper ramifications of the panicle. Neither does it exactly agree with the species in the Botanical Magazine, for it wants the purple lining of the flower, and the dark purple stem there represented.

The species does in fact vary, in regard to the colour of its surface, in a remarkable manner. I shall soon publish in this work a most striking variety, raised by Mr. Mangles, with brilliant scarlet and green flowers.

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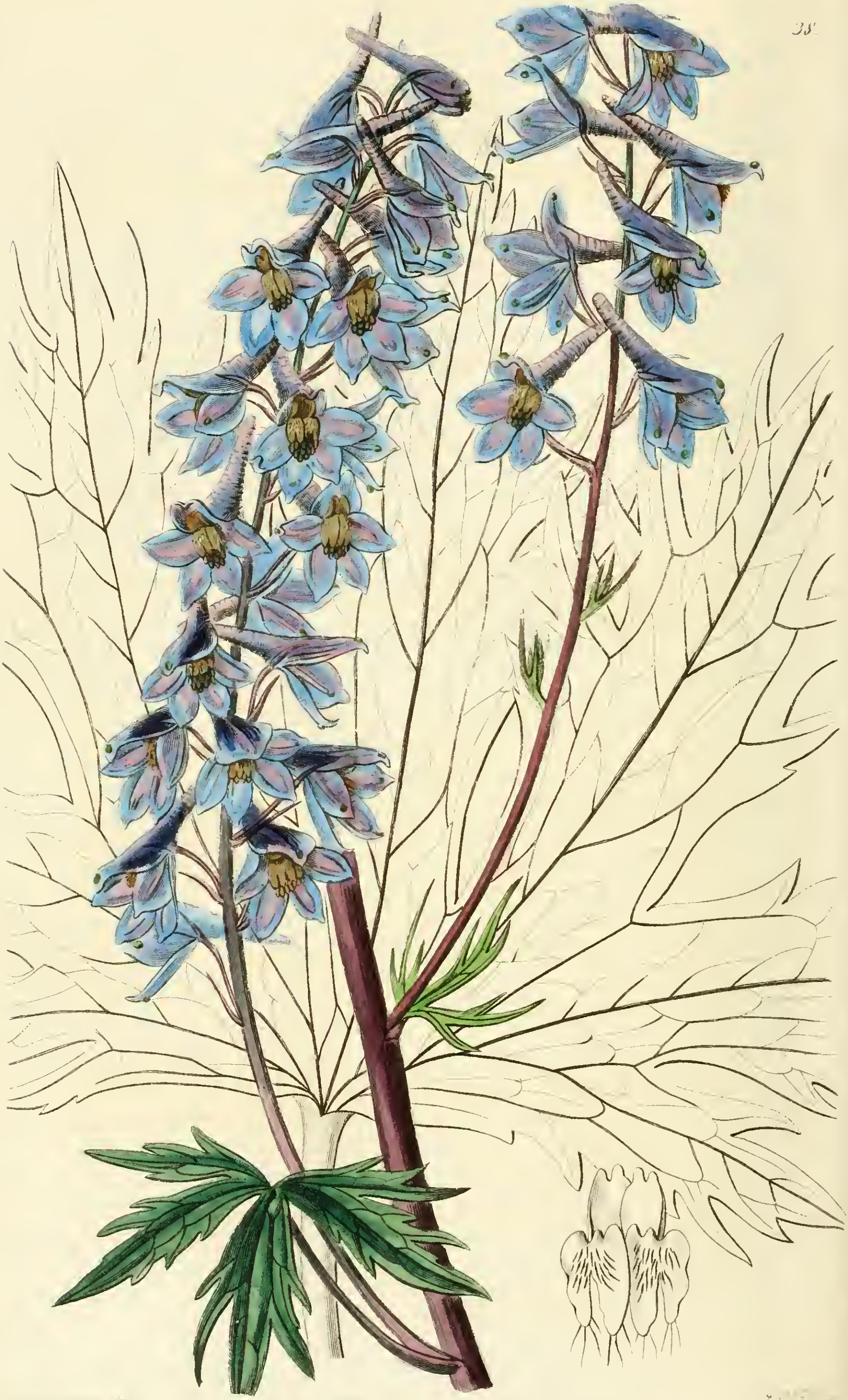
* See Bot. Reg. fol. 2012.

It may be cultivated in a greenhouse. The soil best suited to it is a rich loam, mixed with about one-fourth of sand and peat, to which a small quantity of dung should be added. To grow it well, it is necessary to give it plenty of pot-room, and to place it in an open airy part of the greenhouse, near the glass. When growing luxuriantly, it requires a good supply of water, and should be well syringed over-head. If planted out in a border, in summer, it will grow much better than when confined in a pot, and is, probably, sufficiently hardy, with a little protection, to withstand the winter in the milder parts of England. Its propagation is extremely simple, as it throws out young shoots freely from its sides.

Fig. 1. represents the ovary, from which the perianth has been cut off; 2. is a vertical section of the same part; 3. is one of the hairs that clothe the surface of the flowers.

38



Pub. by J. Ridgway 169 Piccadilly July. 1. 1838.

* DELPHĪNĬŪM intermēdĭūm; *var.* palmatīfĭdūm.

Dark-purple Variable Larkspur.

POLYANDRIA *TRIGYNIA.*

Nat. ord. RANUNCULACEÆ.
DELPHINIUM. Bot. Reg. vol. 14. *fol.* 1192.

D. intermedium. *Bot. Reg. fol.* 1963.
Var. palmatifidum; foliis basi subtruncatis: lobis laciniatis, petalis anterioribus bipartitis medio villosis apice pilosis, calycibus atro-cœruleis.
D. palmatifidum. *DC. syst. veg.* 1. 358.

This plate represents a very beautiful Bee Larkspur, with a much branched inflorescence, dark purple hairy stems, and rich blue flowers stained with lilac internally. It is one of the handsomest of the perennial sorts, and is known by these characters, together with its lower petals being deeply divided into two narrow lobes, the ends of which are terminated by loose straggling hairs, while the disk is covered by a short tuft of soft brown hairs. The leaves also are not at all cordate, but have the sides of their base diverging from the petiole at a right angle, so as to form a straight line from one side of the leaf to the other.

I cannot, however, think these peculiarities by any means sufficient to distinguish the plant specifically from D. intermedium; like which it is a hardy perennial, growing five or six feet high, flowering in June and July, and well suited to the back borders of a garden.

According to DeCandolle it is a native of Siberia; but this is very doubtful. The two figures in Gmelin's Flora sibirica supposed to represent this plant, evidently belong to distinct species, and probably in neither case to the Garden plant upon which M. DeCandolle founded his D. palmatifidum.

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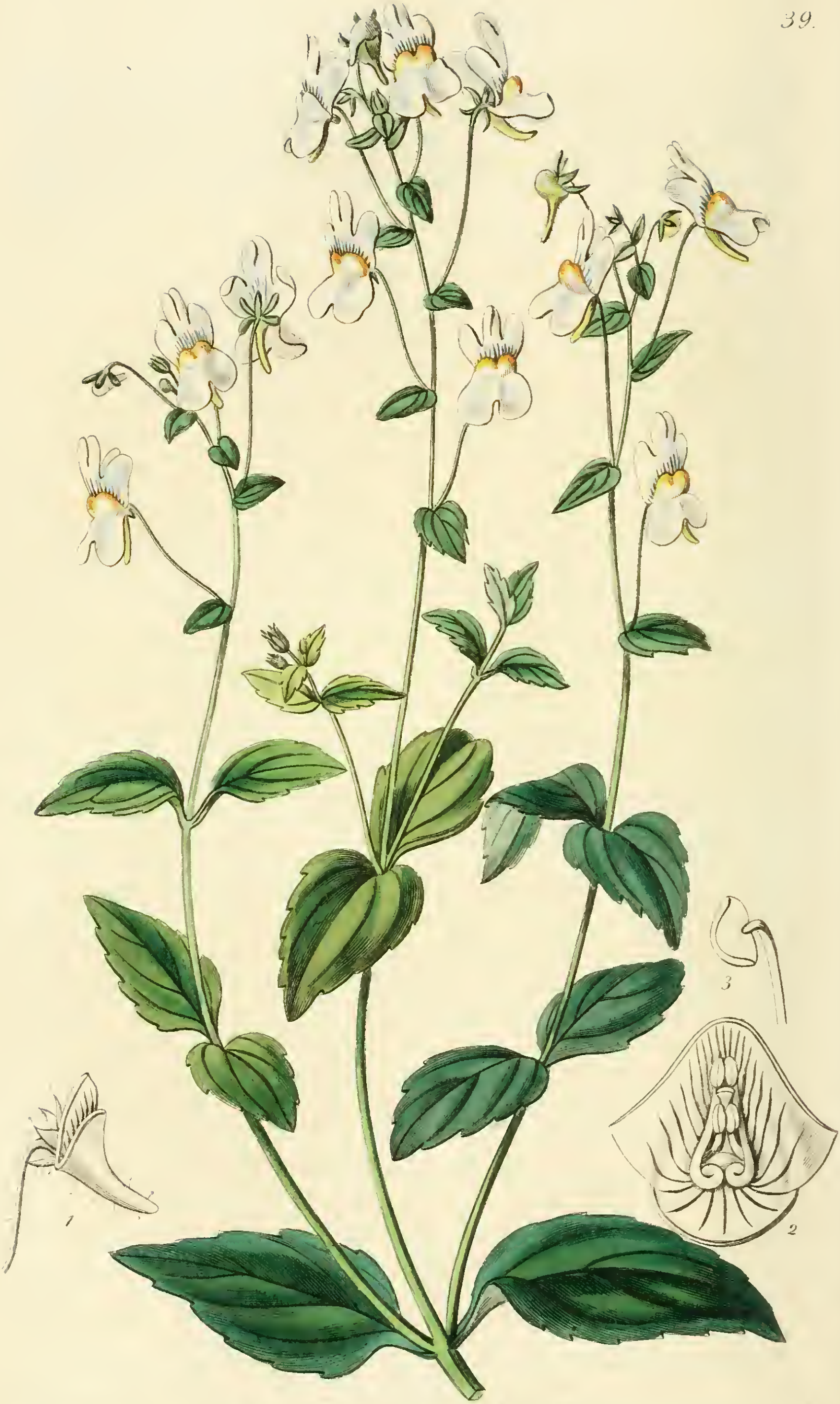
* See Bot. Reg. vol. 22. fol. 1503.



Pub by J. Ridgway 169 Piccadilly Aug 1 [illegible]

J Watts

* NEMĒSĬĂ floribūndă.

Many-flowered Nemesia.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. SCROPHULARIACEÆ. *Tribus* HEMIMERIDEÆ. *Bentham.*

NEMESIA. *Calyx* 5-sepalus. *Corolla* basi saccata vel calcarata, limbo personato bilabiato, labio superiore 4-fido, inferiore integro vel emarginato, palato convexo. *Stamina* 4, didynama, inferiora longiora, basi circumflexa, superiora cingentia. *Antheræ* uniloculares, per paria sæpissime cohærentes. *Capsula* compressa, septicido-bivalvis, valvulis navicularibus subcarinatis apice obliquè truncatis, latere exteriore acuto vel breviter cornuto, rarius apice rotundatis. *Semina* oblonga, ala membranacea cincta.——Herbæ *Austro-Africanæ annuæ, rarius perennes vel suffrutescentes.* Folia *opposita.* Flores *racemosi vel rariùs axillares.* (Benth. in Comp. Bot. Mag. 2. p. 18.)

N. *floribunda;* erecta, subglabra; foliis infimis petiolatis ovatis superioribus subsessilibus ovatis oblongis lanceolatisve plerisque dentatis, corollæ laciniis 4 superioribus labio inferiori subæquilongis, palato tenuissimè pubescente, calcare subrecto obtuso labio inferiori subæquilongo, capsula ovali-oblonga valvulis oblique truncatis angulo exteriore acuto.

N. floribunda. *Lehm. Ind. Sem. Hort. Hamb.* 1833.

N. affinis. *Benth. in Comp. Bot. Mag.* 2. *p.* 21.

"An upright branching annual, nine inches to a foot high, nearly glabrous in all its parts, or bearing a few short hairs in the upper part of the plant. *Leaves* opposite, the lower ones borne on short foot-stalks, the upper ones sessile, all of them in the variety before me usually oval, sometimes oblong, or somewhat lanceolate in wild specimens, and generally irregularly toothed in the margin. *Racemes* terminal, loose. *Peduncles* one-flowered, alternate and solitary in the axilla of a small ovate bract or flower leaf, about an inch long, without any bracteoles, and usually bearing a few hairs. *Calyx* formed of five linear sepals, free from the base. Tube of the *corolla* bearing a linear-conical obtuse

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* Apparently from νεμησις division, in allusion to the lobes of the upper lip of the corolla.

spur at the base, about the length of the lower lip; mouth of the corolla closed; upper lip broad, ovate, rather convex, divided into four obtuse segments, of which the two lateral ones are rather broader and shorter than the intermediate ones; lower lip about the length of the upper, forming at the base a convex palate, and broadly emarginate at the extremity. *Stamina* 4, enclosed within the tube, the lower pair the longest, with their filaments twisted at the base, so as to encircle the other stamina and the style; upper filaments short and nearly straight. *Anthers*, of both pairs, oblong, unilocular, and cohering in pairs. *Style* short, straight. *Stigma* slightly dilated. *Capsule* oblong, nearly straight, each valve obliquely truncate at the apex, so as to form nearly a right angle with the other valve, and with a sharp angle at the outer end.

"When I published a synopsis of the Hemimerideæ in the Companion to the Botanical Magazine, I had not seen the seed-catalogue, in which the present species was described, and I had included it in my N. affinis which varies much, both in the breadth of the leaves and in the length of the fruit. The cultivated specimens before me have the foliage of my N. affinis β latifolia from the Uitenhage and Albany districts, and the capsule of N. affinis α, which has been found in the neighbourhood of Cape Town. It is possible that each variety may be a distinct species, but as the wild specimens I have seen are not sufficient to determine the point satisfactorily, I have preferred reducing them all, for the present, to one under Lehmann's name, which has the priority over mine."

For the foregoing memorandum I am indebted to Mr. Bentham. The plant is a hardy annual, rather spreading, and growing from nine to twelve inches high. It flowers from June to August.

The seeds may be sown about the middle of March, and under the same circumstances as those of common hardy annual Linarias.

Fig. 1. is a view of the palate and spur; 2. of the stamens, looking down upon them; 3. of a stamen.

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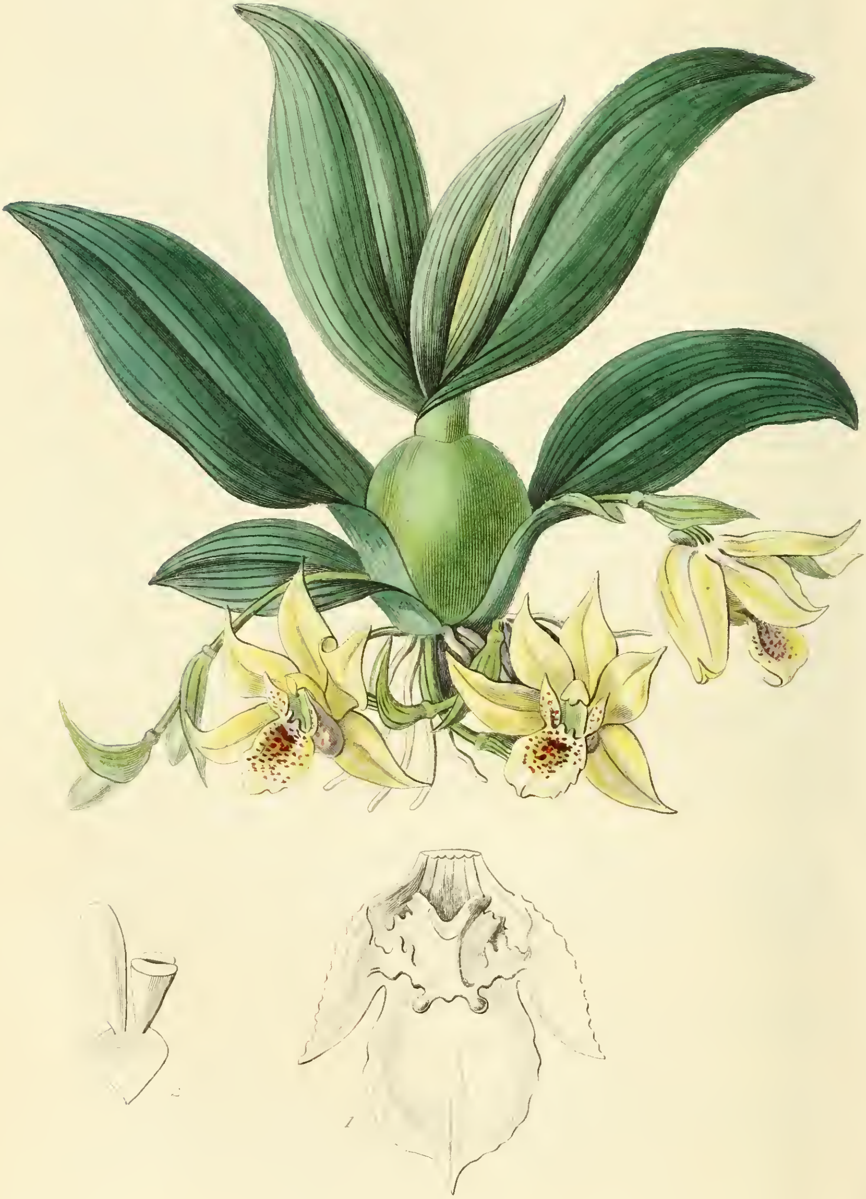

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* MAXILLĀRĬĂ Rollissōnĭī.

Messrs. Rollisson's Maxillaria.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
MAXILLARIA. Bot. Reg. vol. 11. *fol.* 897.

M. *Rollissonii;* acaulis, pseudobulbis subrotundis compressis subbifoliis, foliis oblongo-lanceolatis acutis apice recurvis, scapis subunifloris diffusis laxè vaginatis, sepalis carinatis lateralibus basi subæqualibus petalisque acutissimis, labelli lobis lateralibus ovatis angustis acutis intermedio oblongo membranaceo apiculato margine deflexo: callo disci elevato carnoso anticè transverso lobos laterales labelli conjungente medio producto truncato tridentato et denticulis utrinque reflexis posticè fornicato truncato bilobo. *Bot. Reg. fol.* 1986.

Planta *omninò facie* M. stapelioidis, *colore minùs pallido cæsio.* Folia *nunc oblonga apice acuta recurva, nunc magis lanceolata; semper sessilia.* Bracteæ *cucullatæ, acuminatæ, ovariis longiores.* Sepala *et* petala *pallidè flava, immaculata, conformia et subæqualia.* Labellum *flavescens, sanguineo guttulatum; lobis lateralibus columnam utrinque aures ad instar adstantibus, margine posteriore crenulato.* Crista *labelli elevata, transversa, anticè cornubus duobus clavatis armata altero minimo interjecto, posticè biloba fornicata utrinque dentata, denticulis quibusdam columnam respicientibus in latera jugi.* Pollinia 4 (8 8) *per paria adhærentia glandulæ tenui rhomboideæ.*

A curious little species inhabiting the woods of Brazil, whence it was imported by Messrs. Rollissons, with whom it flowered in August, 1837. In many respects it is very like *M. stapelioides,* and when out of flower the two species may be mistaken for each other; but the blossoms are strikingly

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* See Bot. Reg. fol. 1428.

different in colour and in the form of the curious crest which stretches across the lip from one side to the other.

Fig. 1. is a magnified view of the lip, with its crested appendage. Fig. 2. represents the pollen masses, with their gland; half one of the pairs being cut away.

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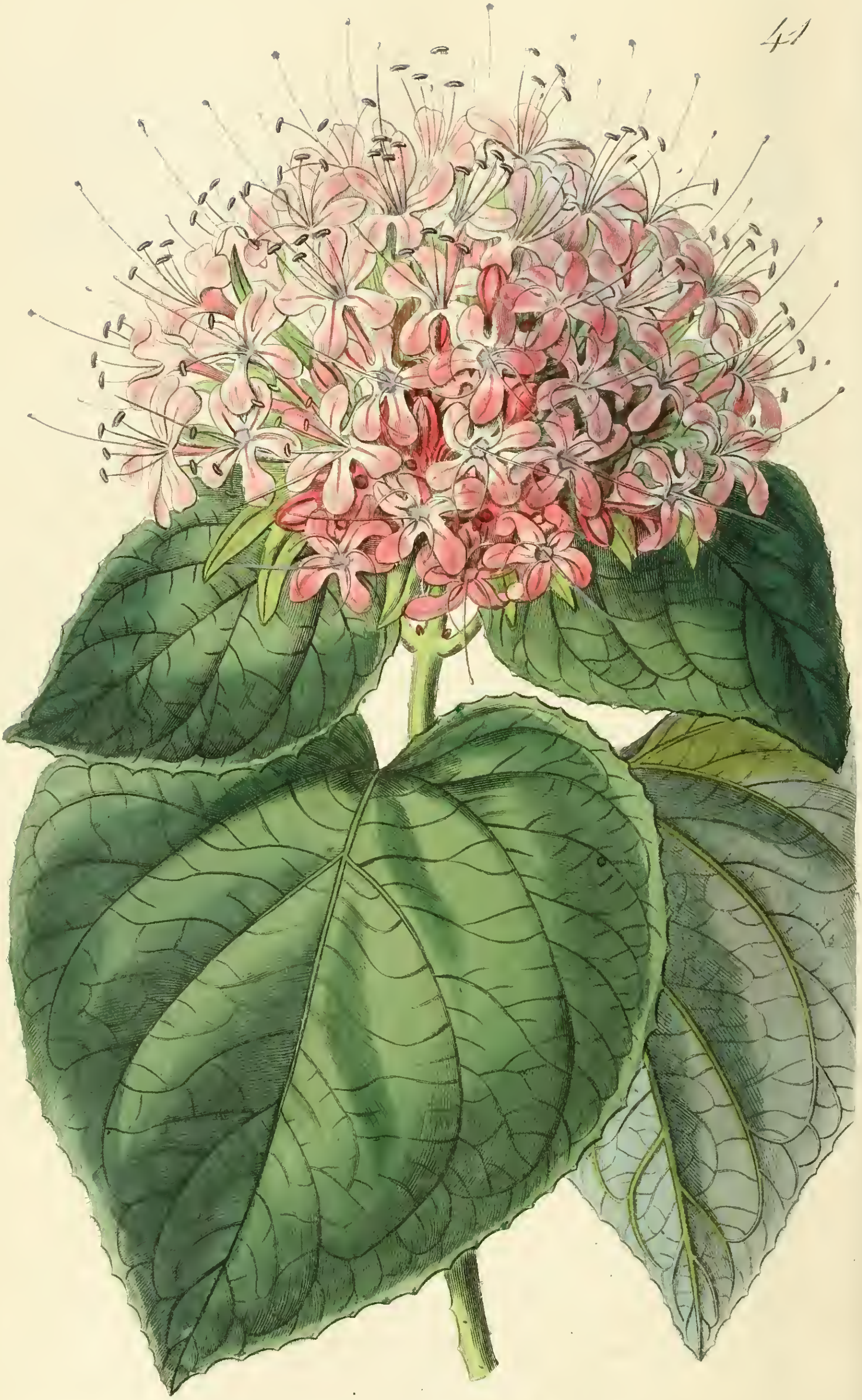

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J. Watts sc

* CLERODÈNDRÒN frāgrāns

Fragrant Clerodendron.

DIDYNAMIA *ANGIOSPERMIA.*

Nat. ord. VERBENACEÆ.
CLERODENDRON. Bot. Reg. vol. 5. fol. 406.

C. *fragrans;* foliis subrotundo-cordatis rugosis dentatis pubescentibus, floribus sphæroideo-aggregatis terminalibus, corollæ laciniis linearibus apice rotundatis dilatatis, stylis staminibus multò longioribus.

C. fragrans. *Hort. Kew. ed.* 2. 4. 63. *Vent. Malm. t.* 70. *Willd. enum.* 659. *Bot. Mag. t.* 1834.

Few plants are more deserving cultivation than this, which in the gardens of China is one of the handsomest of their Flora; as is attested by a beautiful Chinese drawing preserved in the library of the Horticultural Society.

In this country it is usually met with in the double state represented in the Botanical Magazine, t. 1834. But the single-flowered kind, now figured, is much more beautiful and scarcely less fragrant. It is a conservatory plant of the easiest cultivation, and if placed in the open border in a warm place during summer, it will remain healthy and flower abundantly. But it is killed by the first frost.

It grows with great luxuriance, and the chief thing to be attended to in its cultivation is a sufficient quantity of room. A damp stove seems to suit it very well. If it be in a healthy condition, the pot in which it is grown will soon be completely filled with its roots; in this state it is necessary to give it plenty of water, and syringe it freely over-head. The syringing is more particularly necessary, because, it is very liable to be infested by insects, (coccus) which, if allowed to get into the dense head of flowers, are not easily eradicated.

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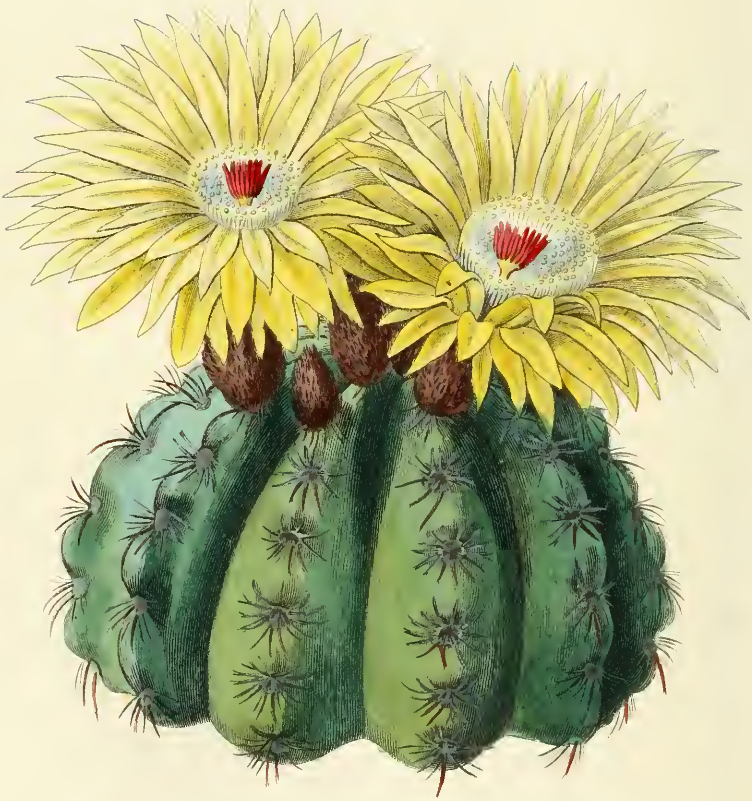
* See Bot. Reg. vol. 16. fol. 1307.

The best soil is a rich loam, mixed with leaf-mould and sand. It is propagated freely by cuttings taken from the half-ripened wood, inserted in silver sand in the usual manner, and plunged in a hot-bed.



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* ECHINOCĀCTŬS Ottōnĭs.

Mr. Otto's Spiny Cactus.

ICOSANDRIA *MONOGYNIA.*

Nat. ord. CACTACEÆ.
ECHINOCACTUS. *Bot. Reg. vol.* 20. *fol.* 1707.

E. *Ottonis ;* caule subrotundo, costis obtusiusculis distantibus, fasciculis spinarum distantibus subuliferis medio villosis, spinis 3-4 cæteris longioribus, tubo calycis obconico tomentoso fusco petalis luteis acutissimis æquali.
E. Ottonis. *Link et Otto Gewachs. Berl. t.* 16. *Bot. Mag. t.* 3107. *Pfeiffer Cact. p.* 48.

A very pretty species of this curious genus; according to Sir W. Hooker a native of Brazil, but according to Pfeiffer a Mexican plant.

It is not at all uncommon in collections, where it regularly flowers in July and August.

The annexed figure was made in the garden of the Horticultural Society.

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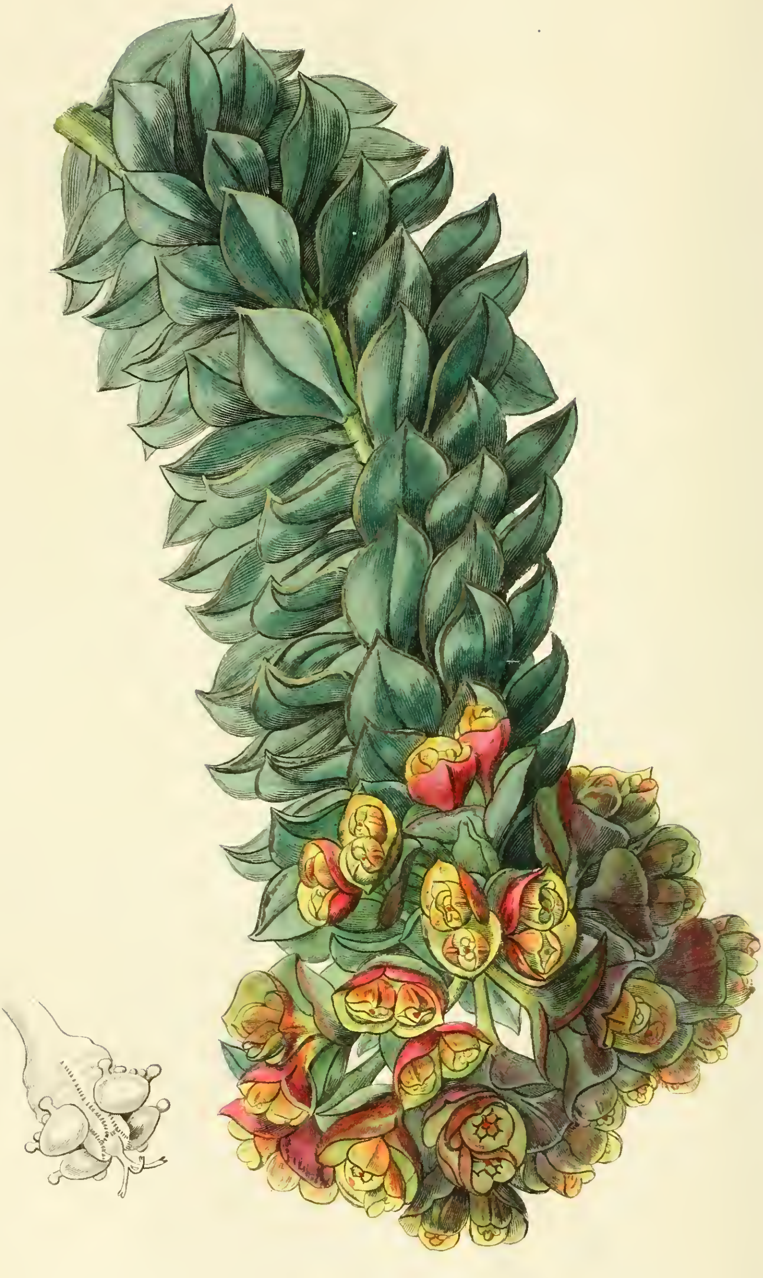
* See Bot. Reg. fol. 1707.



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Pub. by J. Ridgway 169 Piccadilly Aug. 1. 1838

J. Watts sc.

* EUPHŌRBĬĂ rĭgĭdă.

Double-glanded Euphorbia.

MONŒCIA *MONANDRIA.*

Nat. ord. EUPHORBIACEÆ.
EUPHORBIA. *Bot. Reg. vol.* 3. *fol.* 190.

E. *rigida;* suffruticosa, caulibus diffusis, foliis rigidis obovatis acutis imbricatis glaucis margine lævibus, umbellâ multifidâ, bracteolis subrotundo-reniformibus cordatis, involucri laciniis rotundo-cuneatis biglandulosis: glandulis capitatis marginalibus quibusdam minoribus interdùm interjectis.
E. rigida. *Bieb. Taur. cauc.* 1. 375. *Tenore Sylloge.* 237.
E. biglandulosa. *Desf. cor. Tourn. p.* 88. t. 66. *Gussone fl. sic.* 1. 555.?
Tithymalus myrsinites legitimus. *Clus. hist.* 2. 189. *ic.*

A prostrate rigid glaucous-leaved plant, found wild by Bieberstein on dry declivities in the neighbourhood of the Black Sea, flowering in May and June; by Gussone on low mountains and barren calcareous hills in many places in Sicily; and by Tenore in various parts of Calabria and the Abruzzi in similar situations.

It was brought from Italy by the Hon. W. F. Strangways, who has distributed it to many gardens. The specimen now figured was taken from the garden at Abbotsbury in March of the present year, having survived the severe winter. It has also resisted the cold pretty well near London on warm dry rockwork, or at the foot of a south wall well secured from rain. For such situations it is well adapted, and if in health it is a particularly handsome species.

Like most of the hardy perennial Euphorbias, this is easily increased; for when the plant is once well established, it produces under-ground shoots, which, if separated close to the old plant in the autumn or spring, will soon make strong plants. It may also be increased by taking pieces of the strongest roots in spring, and planting them where they are to remain, leaving a little of one end above the surface of the ground.

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* See folio 6 of this volume.

I presume this is undoubtedly the *Tithymalus myrsinites legitimus*, well figured by Clusius, and it should also be the *E. biglandulosa* of Gussone, as Tenore asserts ; but the former of these two Italian authors describes his plant with rather erect stems (caules erectiusculi), which is at variance with the species before us. It however seems quite to agree with *E. rigida* of Bieberstein, to which Tenore refers the Sicilian the *E. biglandulosa*.

In the gardens this has occasionally acquired the erroneous name of *E. myrsinites*, a plant with leaves cartilaginous and serrated at the edge.

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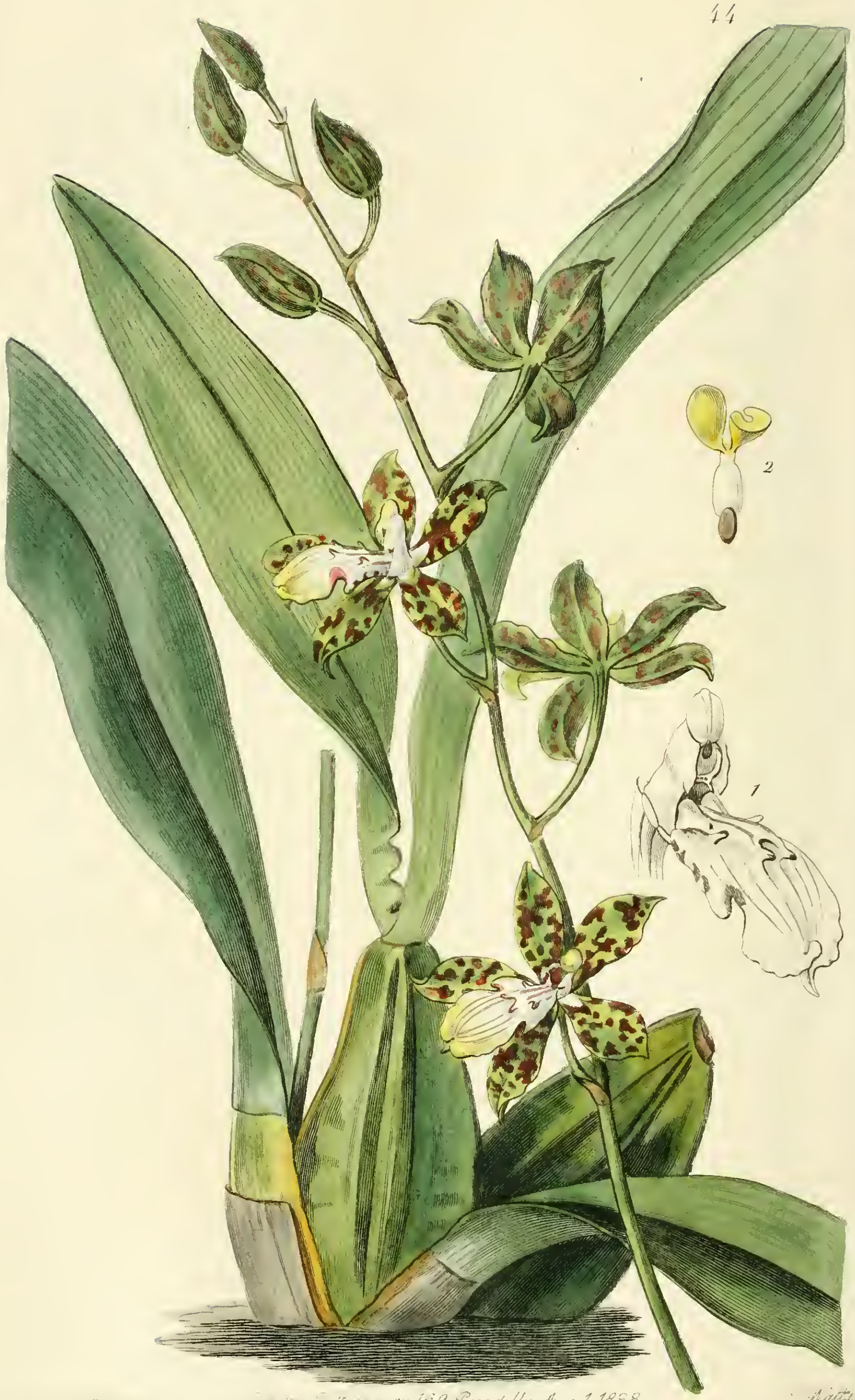

[illegible] 169 Piccadilly Aug. 1. 1838 Watts sc.

* CYRTOCHĪLŪM maculātum.

Spotted Cyrtochilum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
CYRTOCHILUM. *Bot. Reg. vol.* 19. *fol.* 1627.

C. *maculatum;* pseudobulbis ovatis compressis subangulatis diphyllis basi foliosis, foliis latè ligulatis acuminatis striatis apice obliquè emarginatis, scapo simplici (?), bracteis brevissimis squamæformibus, sepalis petalisque carnosis obovato-lanceolatis acutissimis, labello membranaceo oblongo apiculato utrinque dentato lamellis duabus ad basin et corniculo utrinque, alis columnæ falcatis integerrimis. *Suprà in miscell. no.* 39. *April.*
C. maculatum. *Knowles and Westcott, Floral Cabinet, t.*

Planta *habitu* Oncidii *cujusdam pseudobulbosi*, foliis *planis basi tantum complicatis, spithamæis et ultra.* Flores *ferè* 1¼ *unciam lati, luteo-virides, fusco purpureo maculati;* sepalis petalisque *lanceolatis acutis subcarnosis æqualibus patentibus.* Labellum *oblongum, columnæ perpendiculare eâque continuum, apiculatum, convexum, utrinque dente obtuso auctum, medio album, apice lutescens, margine sanguineo maculatum et reflexum; lamellis duabus elevatis collateralibus apice liberis pone basin et denticulo uno libero utrinque.* Columna *brevis, crassa, semiteres, candida; alis brevibus falcatis integerrimis.* Anthera *flava, lineâ elevatâ cristata.* Pollinia 2, *pyriformia, posticè excavata, caudiculâ oblongâ, glandulâque parvâ, fuscâ, ovali.*

This plant first flowered in the garden of the Horticultural Society, where it had been received from Mr. Hartweg, who found it near Vera Cruz. It was subsequently communicated by Messrs. Rollissons, and I have also received it from Chatsworth, and from Mr. Barker of Birmingham. When it first flowered there were those who took it for the

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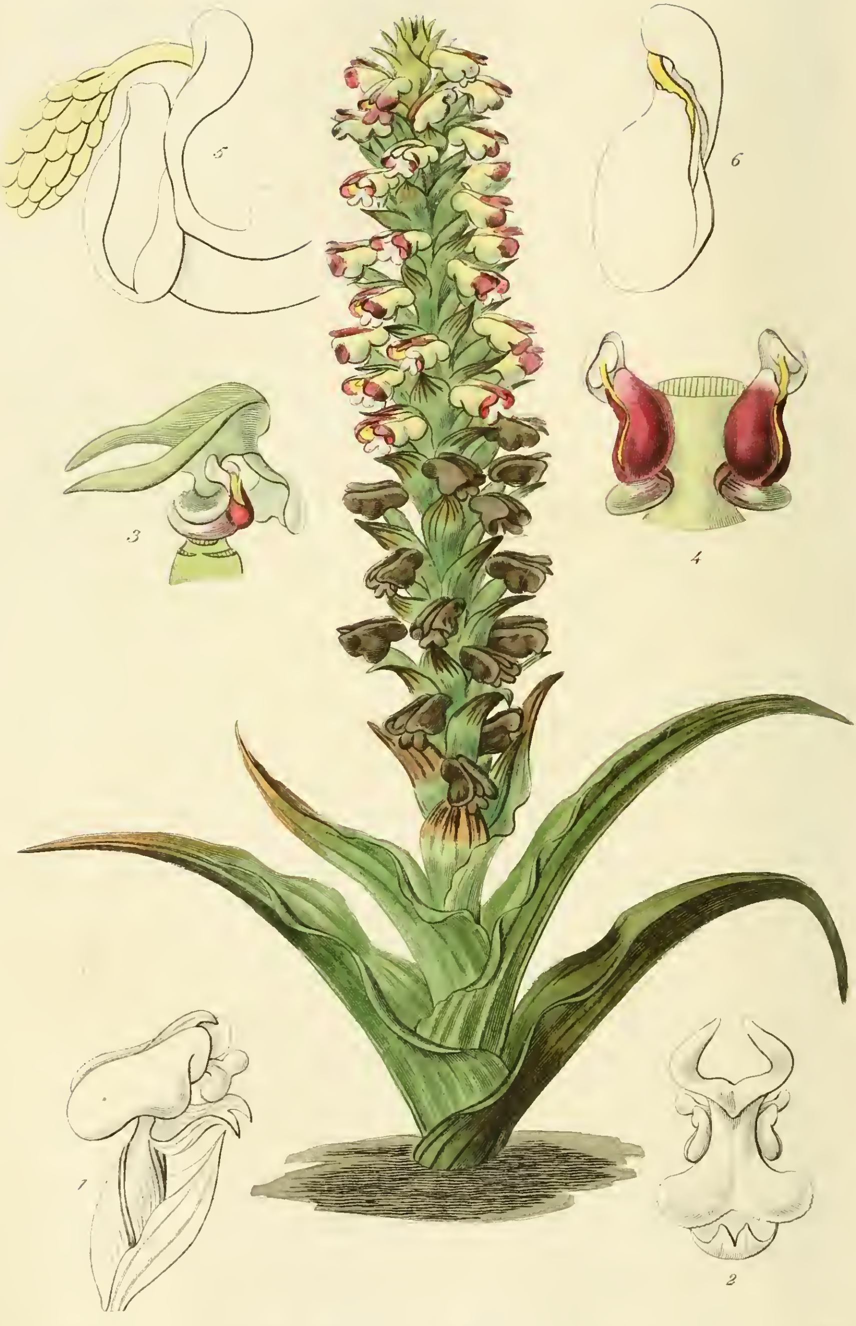
* See folio 1627.

August, 1838.

Oncidium tigrinum of La Llave and Lexarza, a very different plant, with a reniform lip placed upon a long stalk.

Fig. 1. represents a magnified view of the column and labellum; fig. 9. shews the pollen masses, with their caudicula and gland.



Miss Drake del.   Pub by J Ridgway 169 Piccadilly Aug. 1. 1838   J Watts sc

* CORY̆CĬŪM orobanchoīdēs.

Broomrape Corycium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § OPHRYDEÆ.

CORYCIUM, Swartz. *Perianthium* ringens. *Sepala* basi æqualia, erecta, lateralia connata. *Petala* libera, concava. *Labellum* unguiculatum, cum columnæ facie connatum, anticè appendiculatum. *Anthera* dorsalis, resupinata, loculis ungue accreto labelli interposito sejunctis. *Glandulæ* nudæ.

C. *orobanchoides.* Swartz in act. holm. 1800. p. 220. Thunb. Fl. Capens. ed. Schultes, 1. 20. Ker in Brande's Journal, vol. 8. t. 3. f. 3. ??
Satyrium orobanchoides. *Linn. suppl.* 402.

Sepalum supremum *lineare, angustum, acutum, inter petala saccata, flavescentia, apice purpurea rotundata interpositum ;* inferius *paulò brevius, oblongum, concavum, ascendens, bidentatum, dentibus sanguineis.* Labelli *appendix (lobus intermedius) alba, deflexa, cuneata, biloba, laciniis patentibus rotundatis ; lobi laterales erecti, virides, angustè lanceolati, furcam referentes, petalis breviores.* Antheræ *lobi purpurei, oblongi, breves, per totum unguis adnati labelli interpositi latitudinem sejuncti, inversi ; connectivo hippocrepico carnoso subincurvo.* Pollinia *granulosa, sectilia ;* glandulis *nudis in apices loborum lateralium rostelli incurvos jacentes.* Rostellum *resupinatum, trilobum ; lobo medio connectivi formâ eique appresso, lateralibus linearibus, obtusis divergentibus.*

This most curious little plant inhabits sandy places in the colony of the Cape of Good Hope, flowering in the months of September and October. It agrees pretty well with the species described by Thunberg under this name, but not entirely : for that author speaks of the upper sepal being somewhat notched at the end, and of a plant a foot high. It is therefore possible that two species nearly allied to each other may exist at the Cape of Good Hope ; and that while this figure represents one of them, the barbarous drawing in Brande's Journal, as above quoted, may have been intended for the other.

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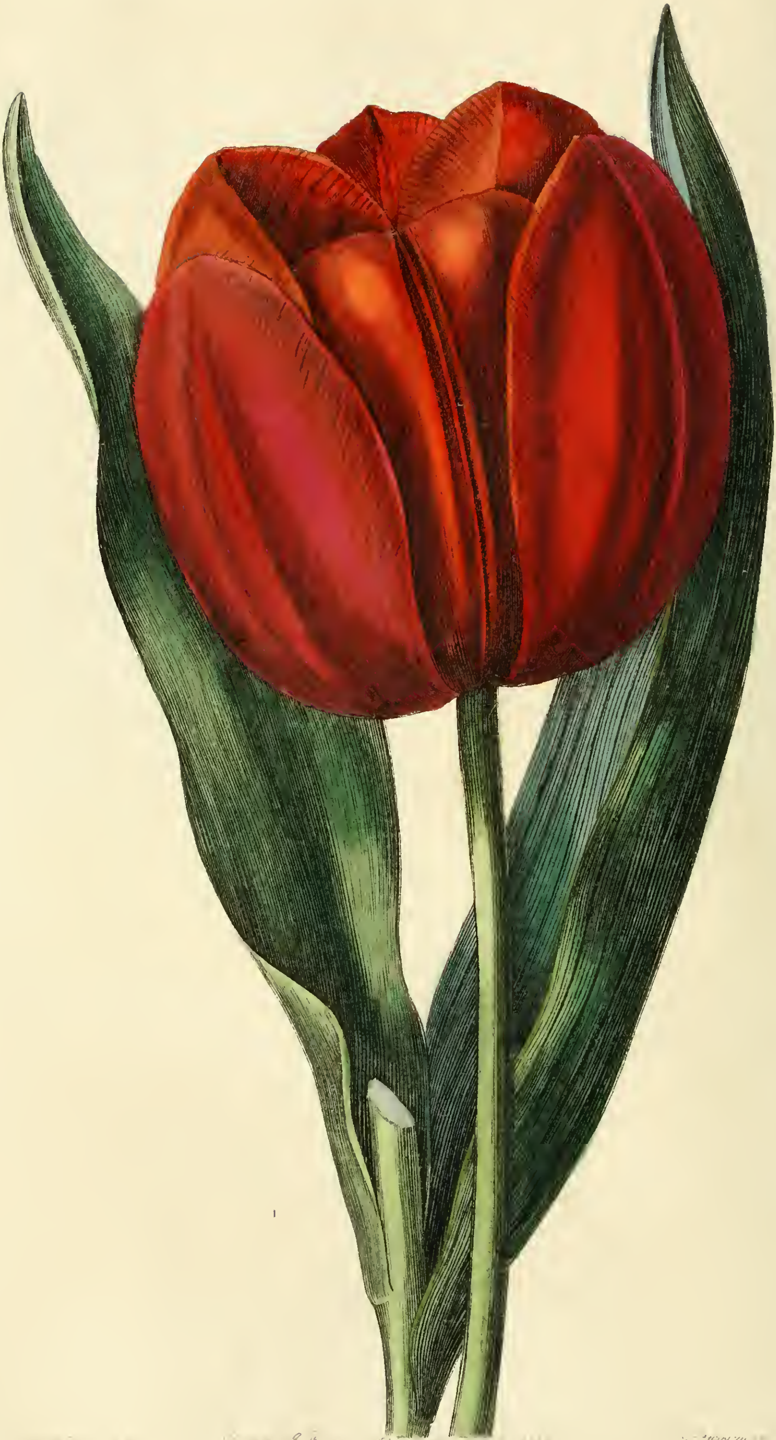
* From κόρυκος a little bag, in allusion to the form of the flower.

The drawing was made in October, 1837, from a plant that flowered in the collection of John Rogers, Esq. Jun., at Streatham. It is, as far as I know, the first instance of a Corycium having blossomed in Europe.

The dissections in the accompanying plate will serve to shew the nature of the very unusual organization found in this genus. Fig. 1. is a flower seen in profile, with none of the parts removed. Fig. 2. is a front view of the same, the petals and upper sepal having been cut off; the principal part of the figure represents the lip, with the point of the lower double sepal just visible at the base. Fig. 3. shews the column in profile with the lip adhering to it, and one lobe of the purple anther. Fig. 4. is a front view of the column, the lip having been cut off, as is shewn by the scar represented on the upper edge; the glands of the pollen masses are seen lying in the cavities of the rostellum. Fig. 5. is a sketch of a pollen mass sticking to the rostellum, and pulled out of the anther. Fig. 6. are the same parts seen in a different direction, with the pollen in its cell.



[illegible] Drake del. [illegible] by J. Ridgway [illegible] Piccadilly [illegible] [illegible] sc.

TŬLĬPĂ Gesnĕrĭānă.

Gesner's Tulip.

HEXANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ.
TULIPA. *Bot. Reg. vol.* 14. *fol.* 1143.

T. *Gesneriana;* caule tunicisque bulbi glabris, petalis oblongis rotundatis concavis, ovario prismatico.
T. Gesneriana. *Linn. Sp. Pl.* 438.

"This species, interesting as the parent of the innumerable garden varieties with round petals, is the largest of all the wild Tulips. Its tall, strong, tough scape, its broad, round petals (in the wild plant uniformly red), sufficiently distinguish it at first sight from its congeners. It is perfectly smooth all over; the absence of down on the scape distinguishes it from T. scabriscapa; the absence of wool on the bulb from O. Solis: the roundness of the petals from both. In the prismatic germ and overhanging stigma alone it has some approximation to T. scabriscapa.

It is found, without any disposition to vary, in fields at three places near Florence: Le Rose, a farm on the road to Siena; Galluzzo, four miles from Florence; and in the val d'Emo, not far from the city on the south side.

Raddi considered it as certainly the Tulip of Gesner, whether that were the parent of the garden sorts or not. Fischer thinks the T. Gesneriana of Pallas, found in the steppes of Russia, a distinct species, and not the parent of the garden sorts."

September, 1838.

For the foregoing note I am indebted to the Hon. W. F. Strangways. No synonyms beyond those of Linnæus are quoted, because they are both uncertain and uninstructive. The plant figured under this name in the present work, folio 380, from bulbs sent from Constantinople, is *T. oculus Solis;* and I doubt whether the Cappadocian plant referred to by Gesner as the origin of our garden Tulips, was any thing else, if it really came from Cappadocia. It seems impossible to say what the kinds were which Clusius had from Caffa and Caroba, but they were probably also T. oculus Solis in part at least. The form of the flower of the species now represented, its smoothness and its robustness, appear sufficient evidence of its identity with the *self* tulips from which the gay varieties of the Tulip fancier are bred.

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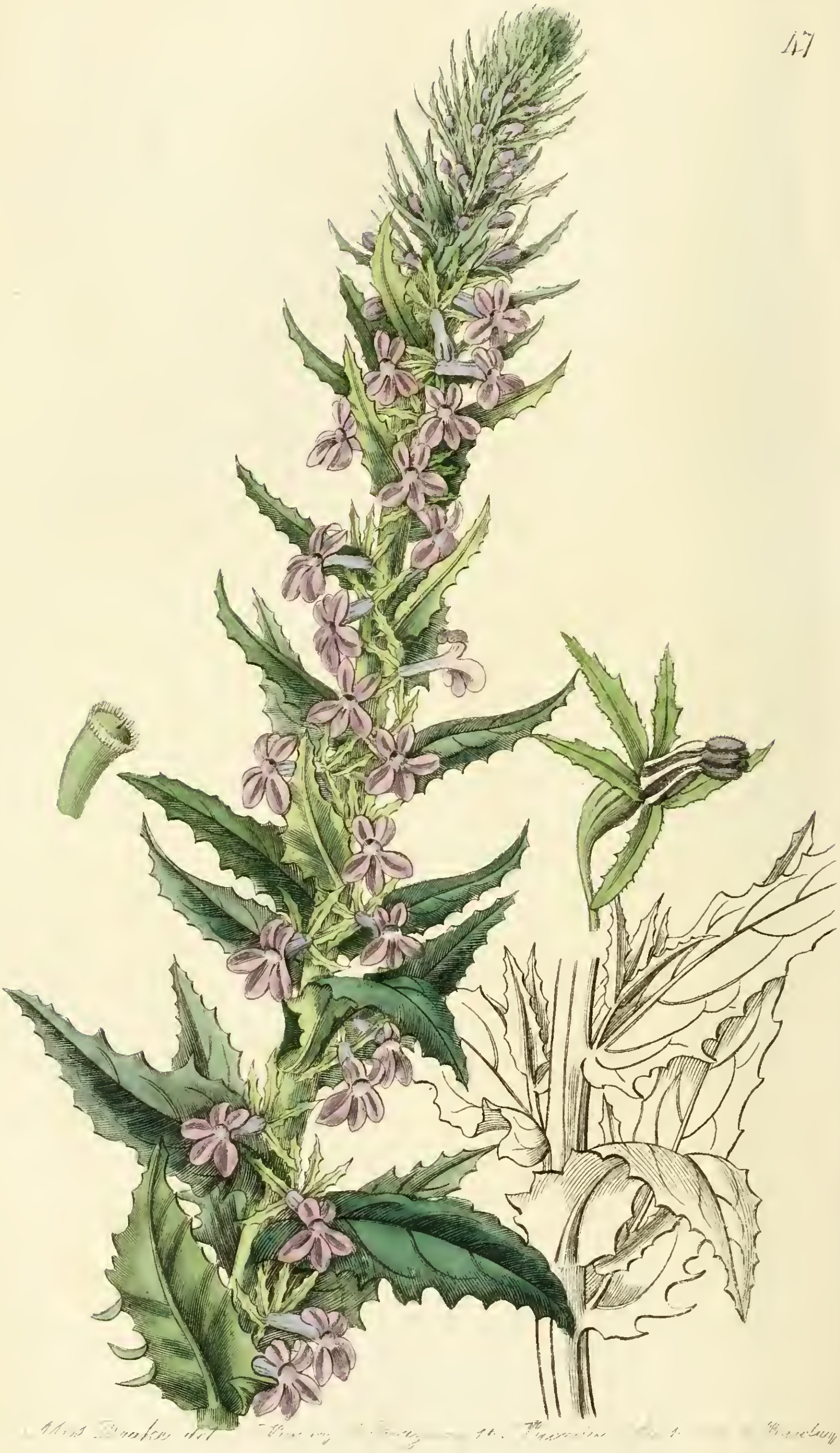

Miss Drake del. [illegible]

* LOBĒLĬĂ fenestrālĭs.

Loop-holed Lobelia.

SYNGENESIA *MONOGAMIA.*

Nat. ord. Lobeliaceæ.
LOBELIA. Bot. Reg. vol. 1. *fol.* 60.

L. *fenestralis;* caule herbaceo simplici sulcato, foliis lanceolatis acuminatis dentatis glabris semi-amplexicaulibus, spicâ terminali multiflorâ foliatâ, genitalibus tubo corollæ fisso dimidiò brevioribus. *Kunth Synops.* 2. 347.
L. fenestralis. *Cavan. ic.* 6. *p.* 8. *t.* 512. *f.* 1. *Pers. synops.* 2. 212.
Rapuntium fenestrale. *Presl. Monogr. Lobeliac. p.* 13.

Sepala *sursùm versa, oblongo-linearia, serrata.* Petala 2 *superiora invicem libera, et marginis alterius parte superiore tantùm labio inferiori trilobo agglutinata.* Filamenta *libera, petalis duplo breviora.* Antheræ *cæruleæ, omnes paritèr apice barbatæ.* Stylus *filamentorum longitudine, clavatus;* stigma *conicum, obsoletè bilobum, annulo pilorum circumdatum.* Ovarium *biloculare, polyspermum.*

Found by Humboldt and Bonpland in the temperate parts of Mexico near the city itself, Chapoltepec and Pazcuaro, at the height of 6600 feet. Its seeds have recently been obtained by George Frederick Dickson, Esq. from the same country, and have been presented by that gentleman to the Horticultural Society of London.

It is a half-hardy biennial, growing from two to three feet high, and flowering freely from July to September, if planted in any well manured garden soil, and freely supplied with water during the growing season.

The seeds should be sown about the end of June on a nearly exhausted hot-bed, in pots filled with a mixture of sandy peat and loam; the covering of the seeds, which are very small, must be a very small quantity of silver-sand.

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* See Bot. Reg. vol. 1. fol. 60.

The plants, when large enough, should be potted off into small pots, putting two or three plants into each pot, in which they may remain during winter in a warm part of the greenhouse until the following spring, when they will require shifting into larger pots; they may be finally planted out in the open border about the beginning of June, but not earlier, as a little frost destroys them. They will flower the first season if the seeds are sown early in spring; but the flowers will not be so fine, nor perfect their seeds in any quantity.

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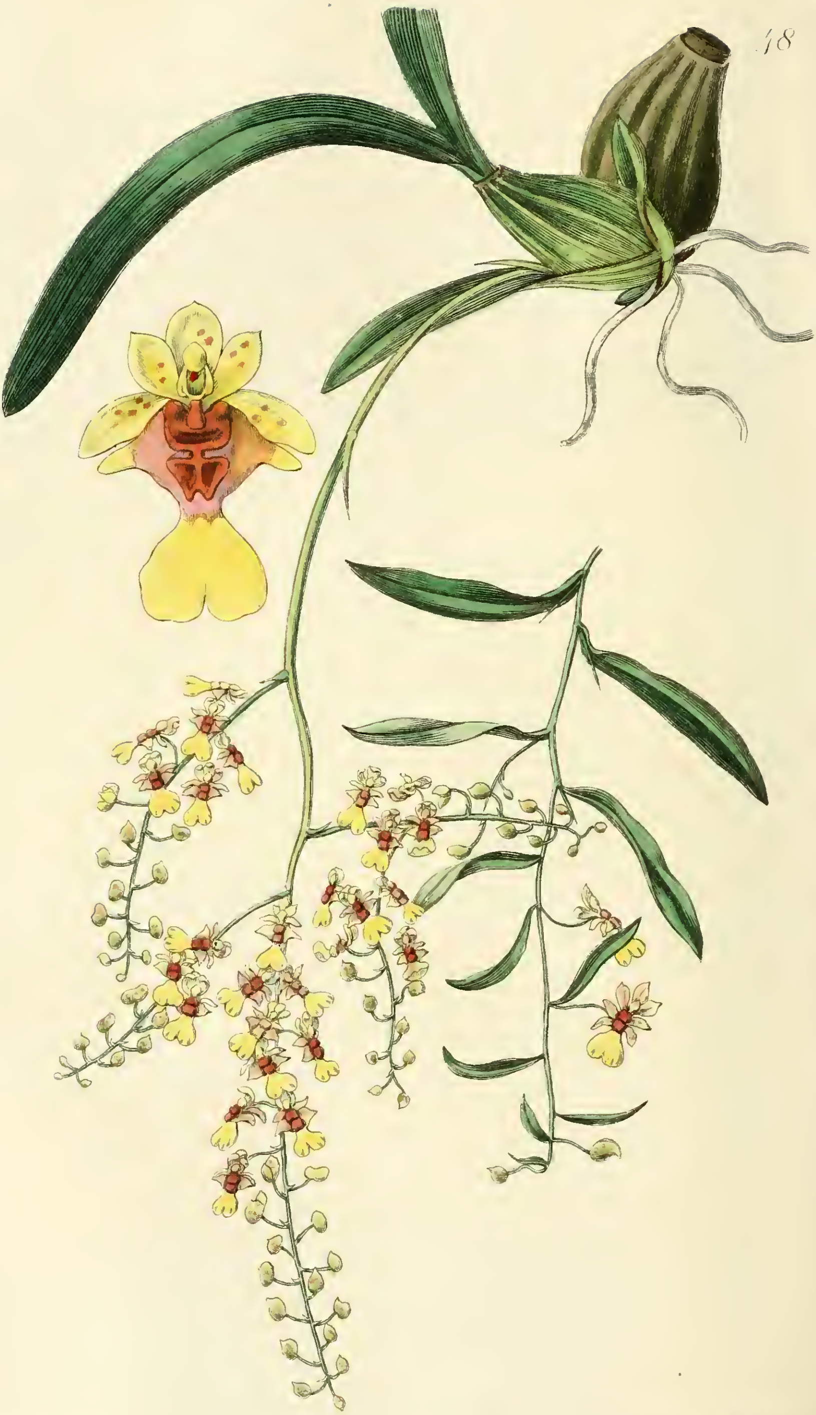

[illegible] [illegible] Ridgway [illegible] Piccadilly [illegible] 1st [illegible]

* ONCĬDĬŪM raniferum.

Frog Oncidium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
ONCIDIUM. *Bot. Reg. vol.* 13. *fol.* 1050.

O. raniferum. *Suprà fol.* 1920.

Rather a pretty species of this extensive genus, with a very peculiar habit. It evidently hangs down from the branches of trees, instead of growing erect as is most usual.

Its name is derived from the curious form of the tubercles which grow at the base of the lip, and of which a magnified figure is given in the accompanying plate. Looked at from above it resembles the figure of a frog *couchant*, the double lower tubercle representing the creature's haunches, and the anterior emarginate one his head.

I originally received it from Mr. Knight of the King's Road; and since that time it has been sent me by various persons. Among the specimens is one, of which a separate figure is given, with all the scale-like bracts of the panicle converted into long narrow leaves.

The species is a native of Brazil. It occurs among Mr. Gardner's Organ Mountain plants (No. 637), and M. Descourtilz met with it in damp forests near Bananal. This traveller observed that it fixes itself to branches not exceeding twelve feet in distance from the earth. Such pieces of information are invaluable to the cultivator, who rarely has any idea of the precise circumstances under which his plants grow naturally, and who, consequently, can only learn after long and dear experience how to treat them. For this reason I hope the following additional particulars concerning the habits of other species of Oncidium, extracted from M. Descourtilz' MSS. will prove acceptable.

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* See Bot. Reg. fol. 1050.

O. *divaricatum.* Trunks of the most lofty trees, on the high mountains of the Serra das Agoâs, in the district of Ilha Grande.

O. *ciliatum.* Common in the woods which cover the low plains among the hills near Bananal.

O. *iridifolium.* Branches of Orange and Lemon trees only. Very common in the neighbourhood of the town of Bom Jesus de Bananal. It prefers dry places, exposed to the sun.

O. *pubes.* Thin forests clothing the table-land near Bom Jesus de Bananal.

This species must be cultivated in a very damp stove, where it may either be tied to a piece of wood and suspended from the roof, or grown in a pot. In the latter case the soil should consist of rough pieces of peat mixed with broken bricks, or something which will form a communication with the drainage below, and carry off superfluous water. The only other thing to be attended to in its cultivation, is the giving of water. This must be done cautiously, especially when the young shoots begin to grow, for they are very apt to suffer at that period. Afterwards it may be given more freely, until the end of the growing season, when the plant must be allowed a period of rest.

It is propagated in the usual manner, namely by division.

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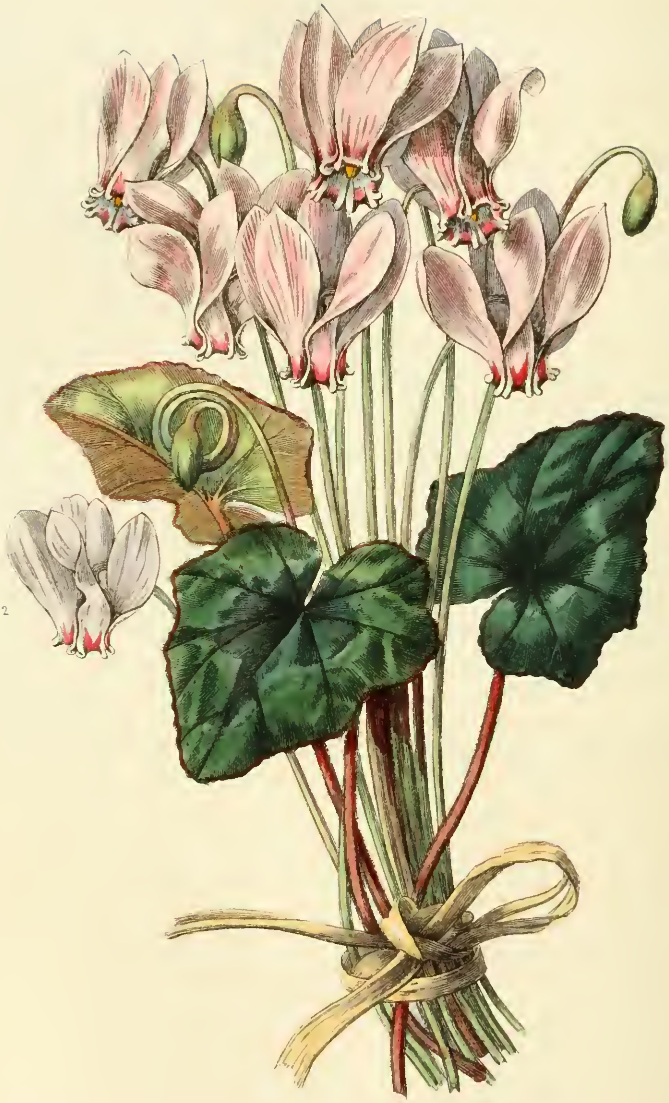

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CY̆CLĂMĔN neapolitānūm.

Neapolitan Cyclamen.

PENTANDRIA *MONOGYNIA.*

Nat. ord. PRIMULACEÆ.
CYCLAMEN. *Bot. Reg. vol.* 12. *fol.* 1013.

C. *neapolitanum;* foliis hysteranthiis cordato-ovatis angulatis crenulatis, corollæ laciniis ovatis obtusis subobliquis ad flexuram basi utrinque unguiculatis, radice rapacea maxima depressa reticulata scabra, fibris undique erumpentibus surculis lateralibus. *Tenore Syllog. p.* 89. *fl. nap. t.* 118.

"This Cyclamen, which would more properly be called autumnale, has long been known to our gardens, and is even wild or naturalised in the county of Kent. It is, however, most abundant in the countries near the Mediterranean, particularly in Italy, south of the Apennines. The name Neapolitanum has been given to it by Professor Tenore, who was the first to distinguish it critically from its congeners, with which it has long been confounded under the names hederæfolium or Europæum, which belong to two very different plants.

"The root is the largest of the genus: a black, flattened tuber, covered with a rough skin, which may almost be called bark, much cracked in old plants. The leaves vary exceedingly on different plants, while they are remarkably constant to their shape, however peculiar, on the same individual— this has not a little contributed to the confusion of species and varieties. They are either ivy-shaped, hastate, heart-shaped, arrow-shaped, or irregularly round-coriaceous, always more or less plaited at the edge, the middle lobe longest, and sometimes very much extended. The flower, however, varies but little; calyx short, corolla pale pink, rarely white, or deep rose-colour, segments reflex, short, sharp, half twisted, paler than the mouth. The mouth is constantly and well characterised by the *ungues* of the segments being each raised at the edge, and usually white, while the middle of the same part of each segment is red, somewhat like ribbons. This is best observed by looking into the mouth of the corolla, which then appears like a pentagon of lunate sides, coloured as described. Anthers narrow, sharp, yellow. Flower usually scentless—a sweet-scented variety is sometimes found near Naples. Capsule and seed of the genus. The white autumnal Cyclamen of the gardens seems to be a slender variety of this species, with narrower segments.

"The flowers appear, as in many autumnal plants, before the leaves, from the end of August to the first days of December; the leaves last through the winter and form a good covering for the ground at that season. Hardy, multiplies readily by seed, likes shade better than sun, and slopes better than flat ground.

"The spring Cyclamen *(hederæfolium)* also grows at Naples, which would be a reason for calling this *autumnale.*"

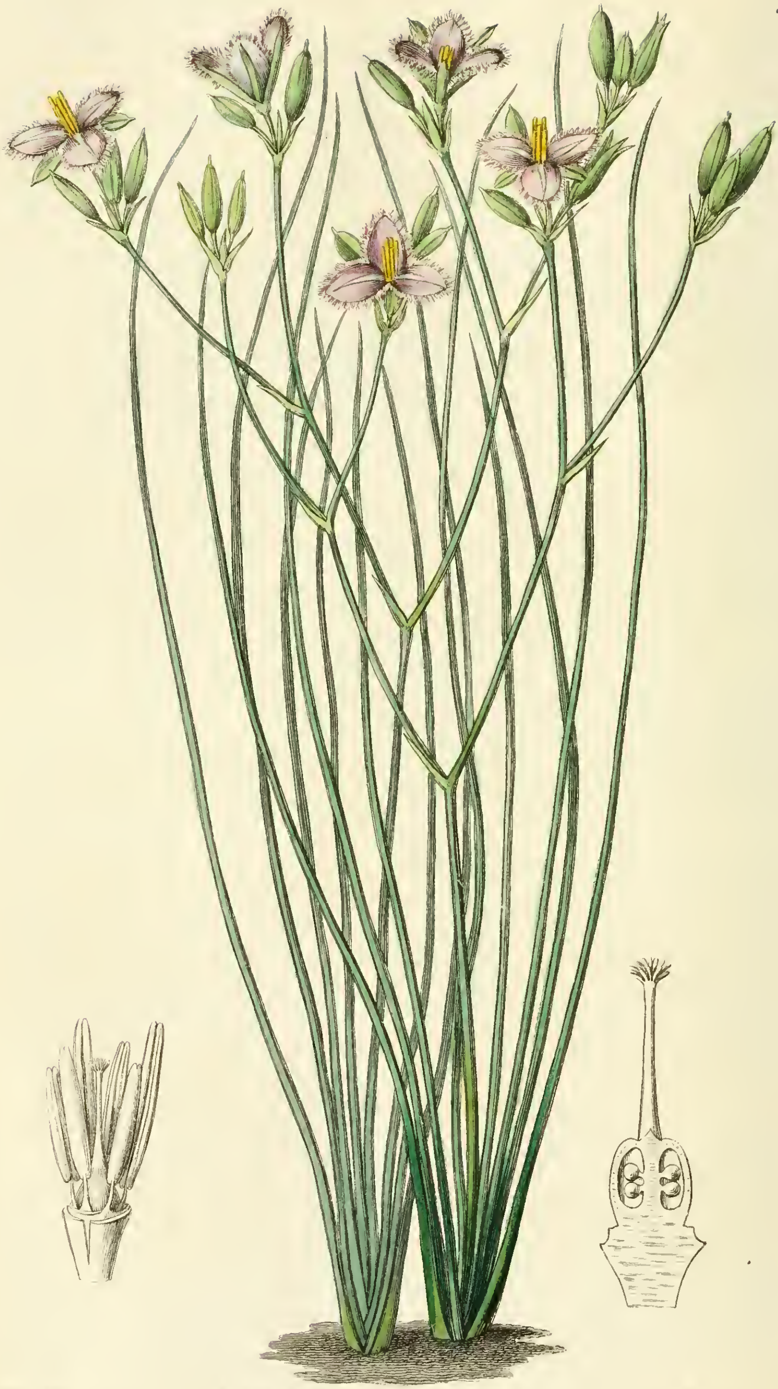
For this account I am obliged to the Hon. W. F. Strangways, who has also favoured me with the following note concerning what he conceives the true C. Europæum, of which I propose some day to produce a figure.

"This species, the name of which has been given to the two other European species by Botanists who have not had the opportunity of examining all of them in their native site, is the only Cyclamen found in central Europe. It would be better distinguished by the name *æstivum,* being the only species that flowers in the middle of summer.

"Its root is a large, rough tuber; leaves broad, orbicular or reniform; slightly crenated at the edges; varying little in shape on different plants, and rarely affecting the pentagonal or ivy-shaped form; usually purple underneath, and, like most Cyclamens, marked with darker and lighter green above.

"The flower is of a uniform rose-colour, inclining to lilac, the segments striated with parallel veins: always highly and agreeably perfumed. The mouth of the corolla (a very good criterion in this genus) is exactly pentagonal, with scarcely an indication of the ribbon-like pale edges, or excrescences, which characterise the turn of the petals in the autumnal Cycl. neapolitanum. The calyx segments are broad and leaf-like; the anthers broad and yellow.

"Cyclamen Europæum seems to be confined to the Alps and the countries botanically dependent on them: not being found, as far as we know, north of the Danube or south of the valleys of Lombardy and the Friuli. It is abundant in the woods of the neighbourhood of Vienna, at Linz, in Styria, and the banks of the Tagliamento, or the pass of the Pontebba: flowering (with the leaves) from the middle of July to the middle of September."



[illegible] Pub by J. Ridgway 169 Piccadilly Sep 1 1838 G. Barclay sc.

* THYSANŌTŬS tĕnŭĭs.

Slender Thysanotus.

TRI-HEXANDRIA *MONOGYNIA.*

Nat. ord. LILIACEÆ.
THYSANOTUS. Bot. Reg. vol. 8. *fol.* 655.

T. *tenuis;* foliis junceis erectis glabris scapi humilis ramosi longitudine, umbellis terminalibus sub-4-floris, bracteis ovatis membranaceo-marginatis mucronatis articulo inferiori pedicellorum æqualibus, staminibus 6 inæqualibus erectis, stigmate papilloso.

Scapus *cum foliis palmaris, vix ultra ; ramis simplicibus patulis basi squamâ acutâ membranaceo-marginatâ suffultus.* Flores *parvi, violacei; antheris luteis.*

Another new species of this curious genus, obtained from Swan River by Robert Mangles, Esq. in whose collection at Sunning Hill, it flowered in May 1837.

It is one of the species belonging to Thysanotus proper, as that figured at Plate 8 of this volume is of the abnormal triandrous section. It shows how very near the genus approaches to *Trichopetalum*, which differs in little beyond its polyspermous seed-vessel.

It grows very well in a green-house, and would probably succeed if planted out in a pit which is well protected during winter. The best soil for its growth is loam and peat, mixed with a quantity of sand.

It is propagated from cuttings, or seed. The seed should be sown in light sandy soil, and placed in a cool frame. That of the plant which forms the subject of this figure, was sown in May 1837, and was producing an abundance of flowers in June last.

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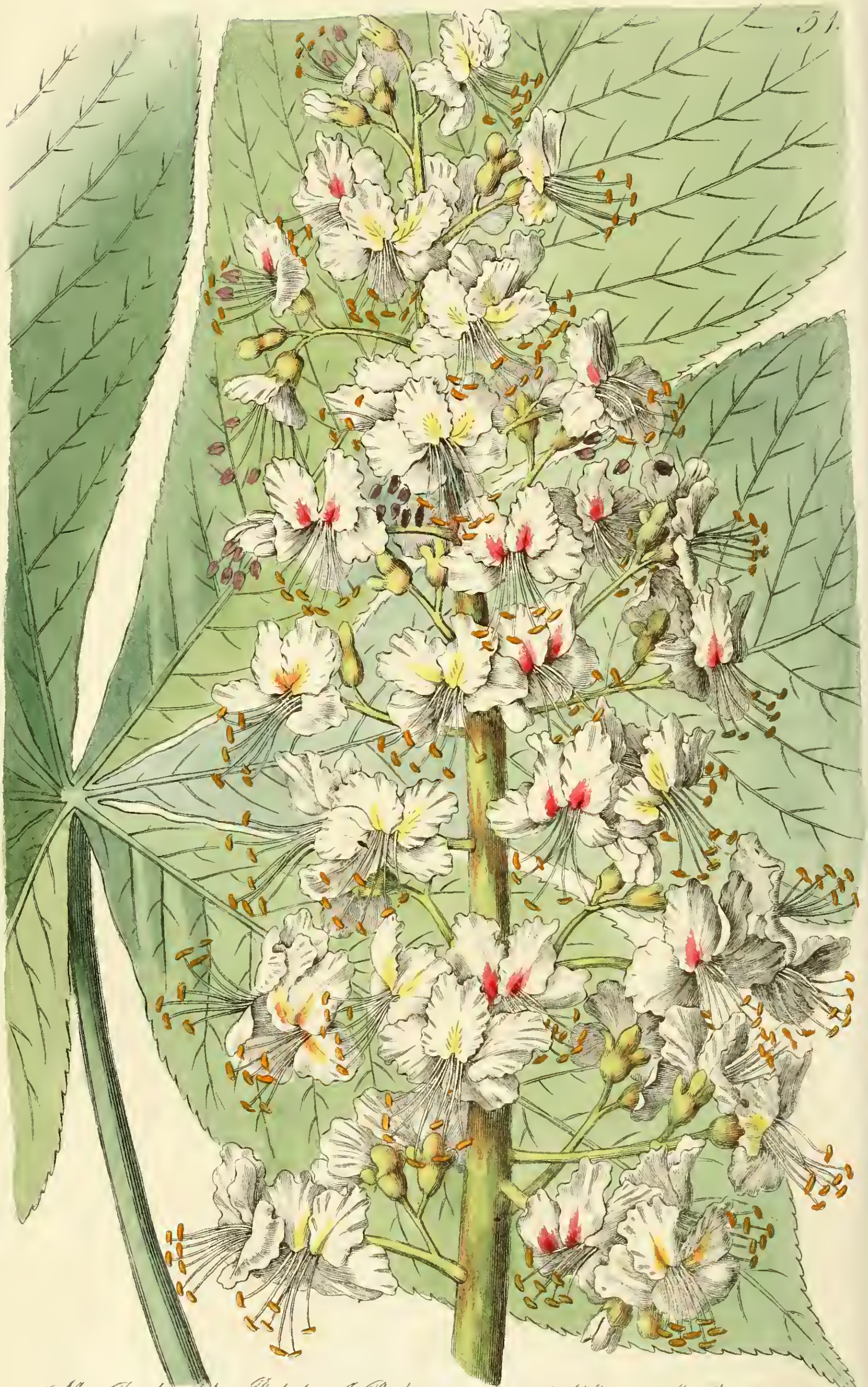
* See folio 8 of this volume.

Fig 1. represents the stamens and pistil; 2. the pistil separate, cut vertically so as to exhibit the interior of two of the cells.

51.



Miss Drake del. Pub by J. Ridgway Sep 1 1838 G. Barclay sc.

ÆSCŬLŬS Ohiotĕnsĭs.

The Ohio Buck's-eye Chesnut.

HEPTANDRIA *MONOGYNIA.*

Nat. ord. ÆSCULACEÆ.
ÆSCULUS. *Suprà vol.* 4. *fol.* 310.

Æ. *ohiotensis;* ramulis pubescentibus, foliolis obovato-lanceolatis argutè serratis utrinque planis.

Æ. ohiotensis. *Michaux arbres forest. v.* 3. 242. *DC. prodr.* 1. 597. *Loud. Arb. et frut.* 1. 467.

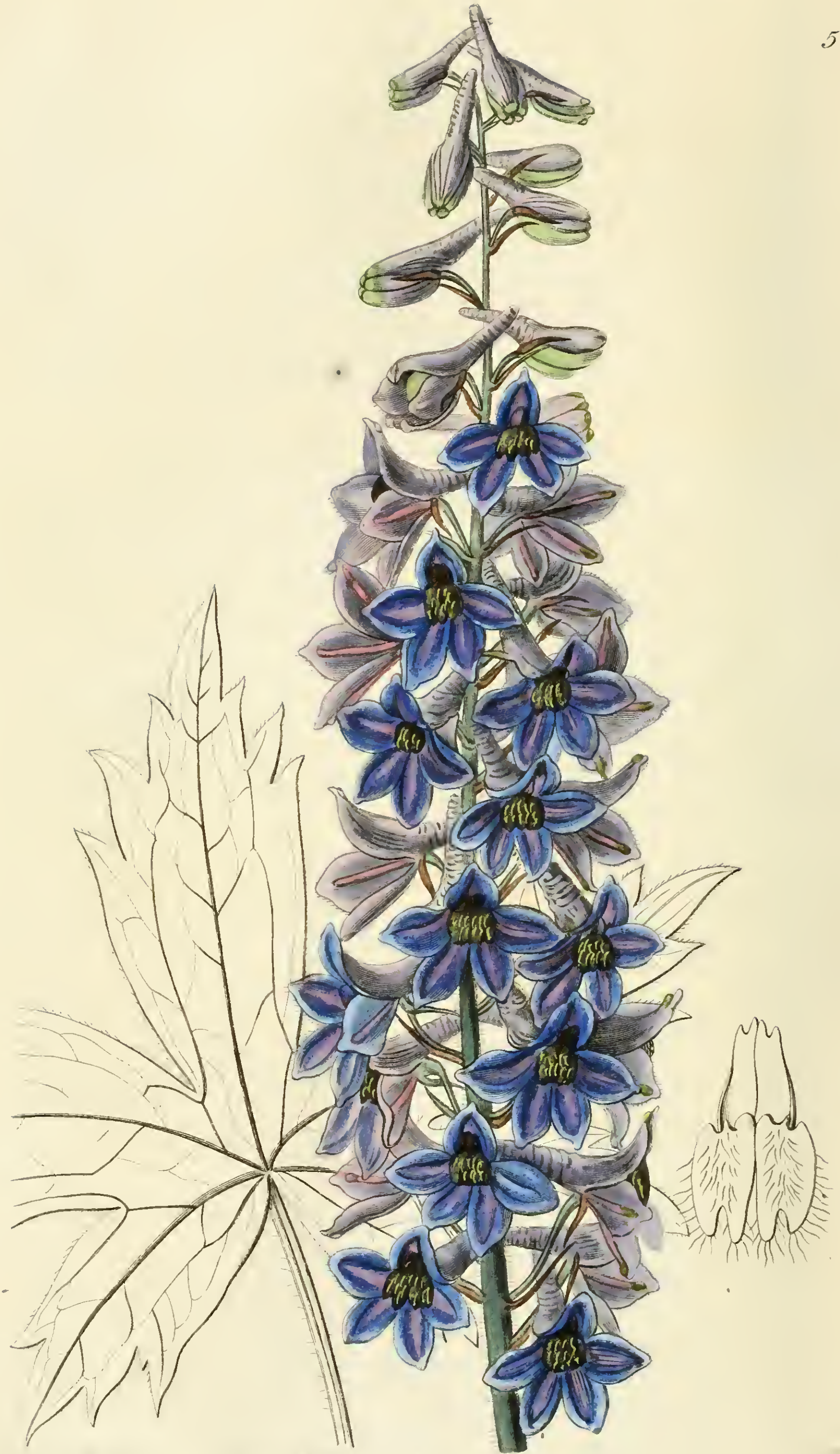
The Buck's-eye Chesnut of the Ohio has always been a doubtful plant.

Michaux who first noticed it says that he never found it in the Atlantic part of the United States, but only beyond the mountains, especially on the banks of the Ohio, between Pittsburgh and Marietta, where it is extremely common, and called Buck's-eye; but, he adds, is not to be confounded with the plant called by that name in Virginia and North Carolina, which is *Pavia lutea.* The ordinary height of the tree is described by Michaux to be not more than from 10 to 20 feet, but he found specimens as much as 35 feet high. Its flowers were unknown to him; he states the fruit to be spiny, and about half the size of that of the common Horse-chesnut, the bark of the old trunk to be blackish, and the liber to have a strong disagreeable odour.

M. DeCandolle adds nothing to Michaux's account, and Mr. Loudon regards this plant as a mere variety of Æsculus Hippocastanum. In the latter opinion I do not coincide. In addition to Michaux's account of the plant, and the improbability that a species found wild only on the Ohio, and confined to a limited region, should be the same with a native of the west of Asia, there are ample differences between this Buck's-eye Chesnut and the Horse-chesnut in their foliage. The leaflets of the former are obovate-lanceolate, finely serrated, flat, and pale green, with a very even surface ; of the latter obovate, coarsely serrated, wavy, and dark green, with a very rugose uneven surface. The shoots of the Horse-chesnut are smooth ; those of the Buck's-eye Chesnut are covered with a fine short soft down. Finally, the latter species, in this climate, is a much more rapid growing tree than the former.

The Buck's-eye Chesnut flowers in May, but rather later than Æsculus Hippocastanum. It may be increased either by grafting in the spring, or by budding in the summer, on the common Horse-chesnut ; the grafts or buds should be worked as near the ground as possible, to prevent the unsightly appearance of the Buck's-eye out-growing its stock.

The species is hardy, but, owing in a great measure to the large size of the leaves and its rapid growth when young, it is often broken by high winds in the autumn. It is therefore desirable to plant it either in a sheltered situation or in groups. It seems only to suffer from the wind when young.



[illegible] 169 Piccadilly Oct. 1. 1838.

DELPHĪNĬŪM intermĕdiŭm; *var.* sapphirīnūm.

Sapphire-Blue variable Larkspur.

POLYANDRIA *TRIGYNIA.*

Nat. ord. RANUNCULACEÆ.
DELPHINIUM. *Bot. Reg. vol.* 14. *fol.* 1192.

D. intermedium. *Bot. Reg. fol.* 1963.
Var. sapphirinum; foliis palmatis pilosis lobis oblongis incisis lateralibus basi approximatis, racemo denso floribusque pilosis, sepalis superioribus angustioribus.

This variety is equal or perhaps superior to any hitherto figured, in the intense rich blue of the flowers, which moreover acquire something of the appearance to which the name of "shot" is applied in silk manufactures, in consequence of a light violet stain appearing in the middle and on the back of each sepal. The petals are of the dull black colour usual in this species.

The accompanying figure was made in the Garden of the Horticultural Society, where the variety has long been cultivated. It is not so tall as some of the kinds, more compact in the arrangement of its flowers, and of striking beauty.

All plants of this description are seen to the greatest advantage on the skirts of shrubberies, or on banks where it is required to produce a wild and rough effect. If it can be so contrived that their flowers are shaded during the day, and brightly illuminated by the setting sun, or that they are placed so as to droop over streams of water, where the freshness and moisture of the air prevents their rapid fading, a brilliancy of colour is afforded by masses of them which we shall in vain attempt to procure in any other way. As they seed freely and are readily raised, it is in the power of any one to procure a supply of plants sufficient for his wants.

The seeds lie some time in the ground before they germinate, so that it is better to sow them thinly in pans of earth, whence they can be transplanted after having grown a few inches high.

Professor Koch says, that he has raised D. alpinum of *W. & Kit.*, D. montanum, palmatifidum and hybridum of *DeCandolle*, D. cuneatum of *Steven*, D. urceolatum of *Jacquin*, D. Clusianum of *Host*, and innumerable others, from the seeds of one and the same species ; a fact about which I have no doubt.

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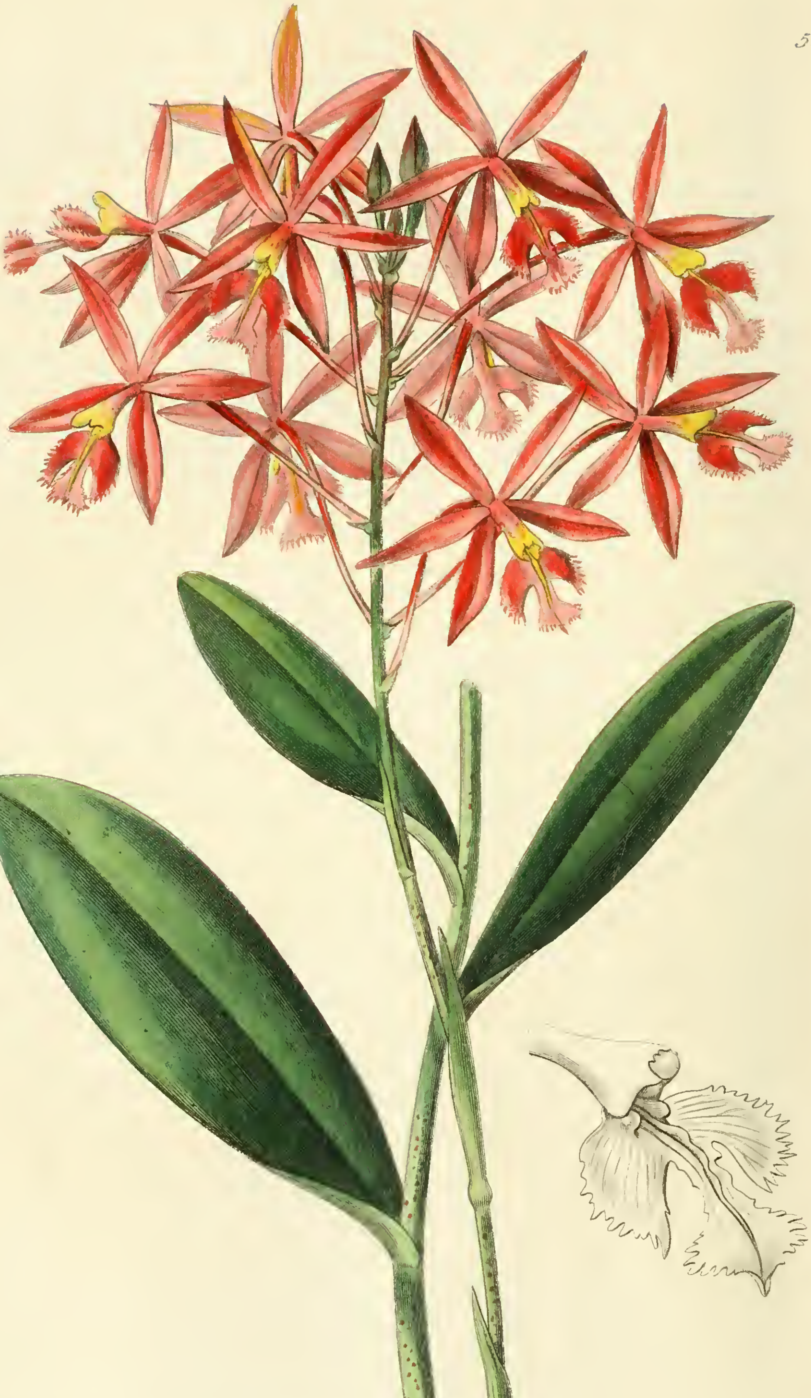

[illegible] Piccadilly [illegible] 1 1838

* EPIDĒNDRŪM Schombūrgkĭĭ.

Mr. Schomburgk's Epidendrum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.
EPIDENDRUM. Bot. Reg. vol. 1. *fol.* 17.

E. *Schomburgkii;* foliis distichis oblongis obtusis margine sanguineo-punctatis, caule simplici apice aphyllo, sepalis petalisque lineari-lanceolatis acutis æqualibus patentissimis, columnâ clavatâ elongatâ, labelli trilobi basi bicallosi lineâ medianâ elevatâ, lobis lateralibus latis rotundatis laceris; intermedio cuneato apice triangulari crispo utrinque acuminato. *Suprà no.* 16. *misc.*

The first knowledge I obtained of this beautiful species was through a drawing and a few dried flowers sent home by Mr. Schomburgk, who met with it during his second expedition into the interior of British Guayana. Since that time it has blossomed with Messrs. Loddiges, and forms one of the most striking of the "elongated" division of the large genus Epidendrum.

In a work like this the brilliant vermilion red of the flowers cannot be imitated; they are of the deep rich tint that is found in Silene laciniata, Lychnis Bungeana, and plants of that kind.

In his drawing Mr. Schomburgk makes the leaves deeply and distinctly marked with blood-red dots all round the margin. In the cultivated plant this did not make its appearance; nevertheless I leave that character unaltered, because it is possible that the spots may hereafter be developed.

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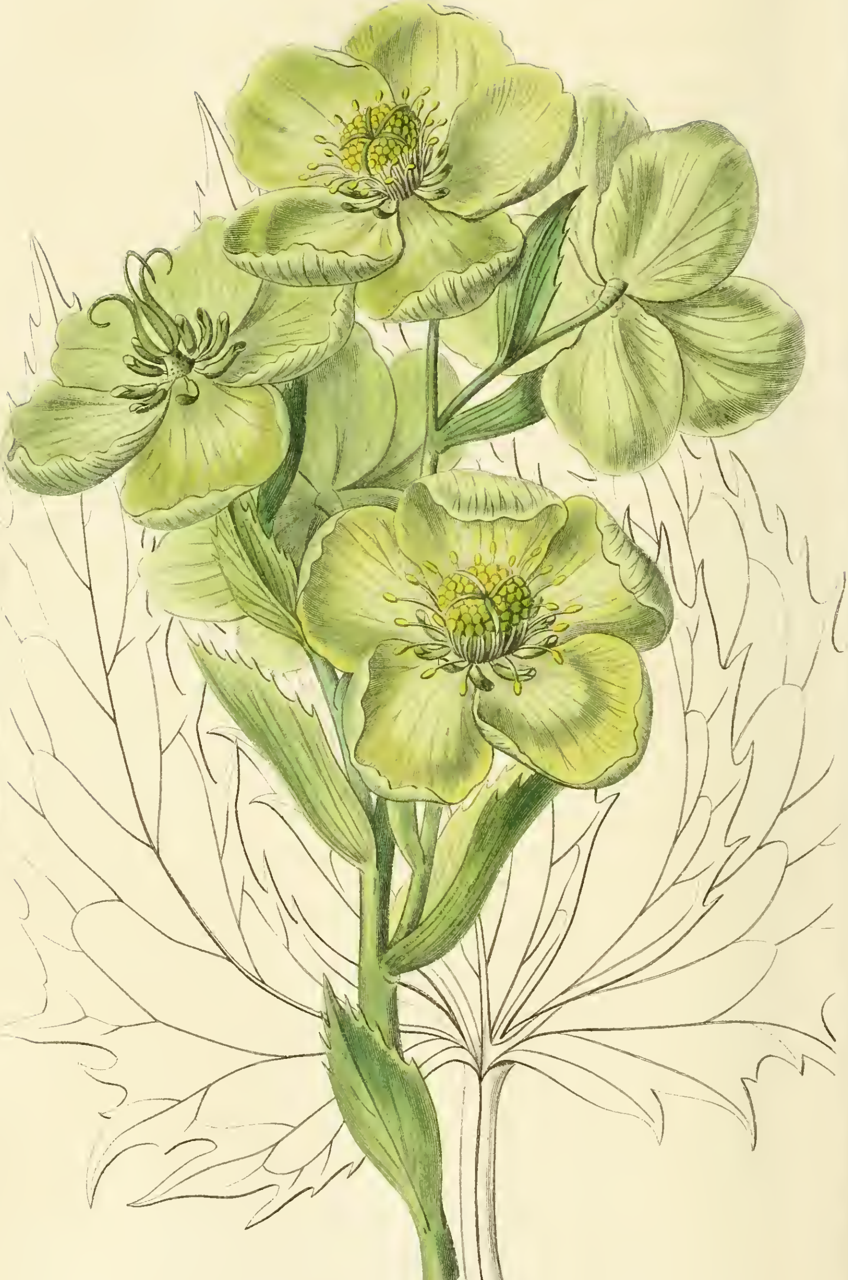
* See Bot. Reg. fol. 1415.

54



* HELLĔBŎRŬS lĭvĭdŭs.

Corsican Hellebore.

POLYANDRIA *POLYGYNIA.*

Nat. ord. RANUNCULACEÆ.
HELLEBORUS. *Bot. Reg. vol.* 19. *fol.* 1643.

H. *lividus ;* foliis ternatis coriaceis : foliolis oblongis acuminatis argutè aristato-dentatis, racemo erecto multifloro bracteis foliaceis.
H. lividus, *Ait. Kew. ed.* 1. *p.* 272. *DeCand. Prodr.* 1. 47. *Cambess. plant. Balear. p.* 32. *Bot. Mag. t.* 72.
H. argutifolius. *Vivian. fl. cors. spec. p.* 8.

A hardy herbaceous plant of rare occurrence, for which I have to thank the Hon. W. F. Strangways.

At first sight it is not unlike *H. odorus*, already figured in this work, fol. 1643, but has extremely different leaves, which are merely ternate, with numerous sharp-pointed toothings, instead of being pedate.

Professor Viviani, supposing the *H. lividus* of the Hortus Kewensis to be a North American plant, distinguished this from it under the name of *H. argutifolius ;* but M. Cambessédes, in his Enumeration of Balearic plants, rightly corrected this error, and shewed that the Corsican Hellebore is the same as *H. lividus.* " I have in vain," he says, " endeavoured to discover what could have induced M. Viviani to suppose the contrary. *H. lividus* is a hardy perennial in the Kew Garden ; it is therefore only the northern parts of America of which it could be a native. I have sought it in vain in the works of Michaux, Pursh, and Nuttall. Upon consulting the figure in the Botanical Magazine all my doubts were dispelled ; it represents the plant of Corsica and the Balearic islands as well as the size of the work would permit."

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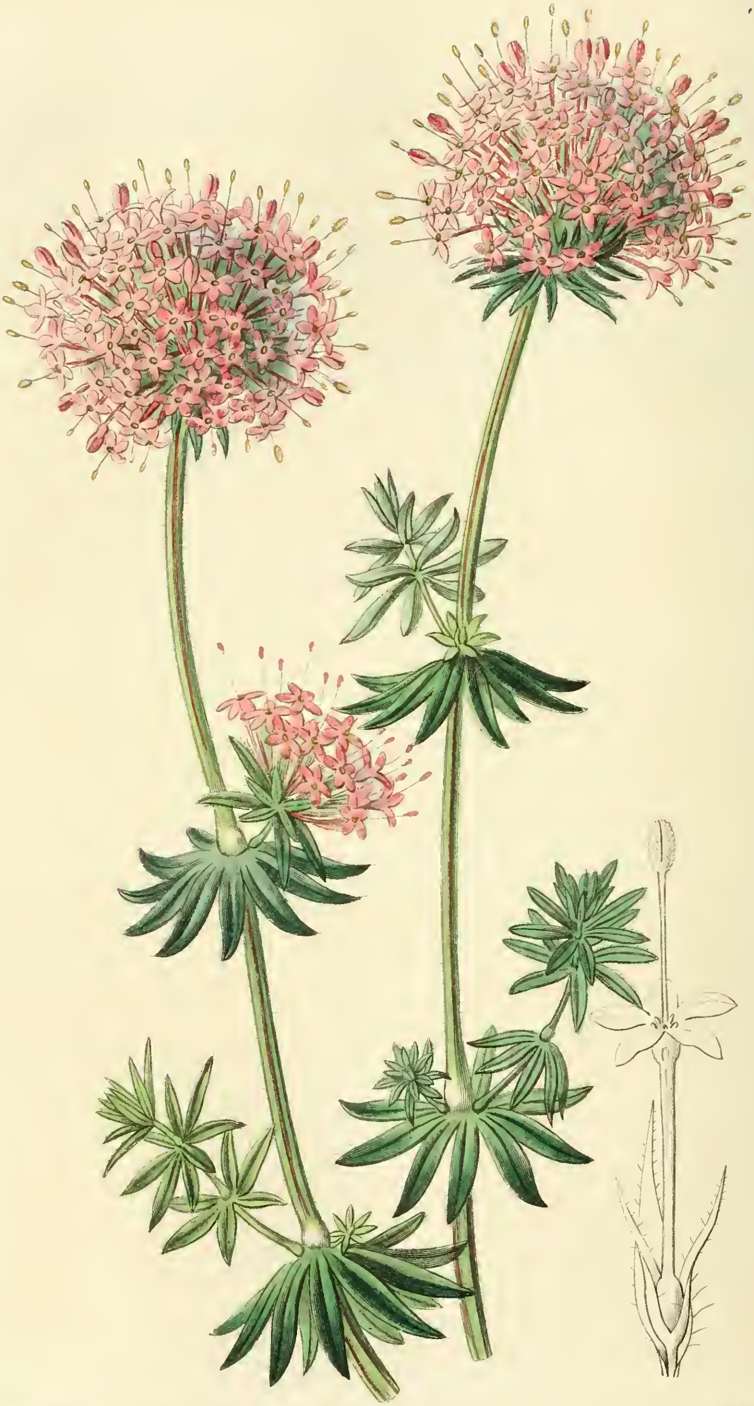
* See Bot. Reg. vol. 19. fol. 1643.

In these remarks I entirely agree; the plant is evidently identical with specimens in my herbarium raised in the garden of M. Audibert of Tarascon from Corsican seeds, and with others received from M. Viviani himself.

It is not only a native of Corsica, but also of the mountains of Majorca near Esperlas, according to Cambessédes.



[illegible] Ridgway & Co. 1838.

Watts

* CRUCIANĒLLĂ stylōsă.

Long-styled Crucianella.

PENTANDRIA *MONOGYNIA.*

Nat. ord. Galiaceæ.
CRUCIANELLA. Linn.

C. *stylosa;* procumbens, foliis 8-9 lineari-lanceolatis cauleque hispidis, capitulis terminalibus pedunculatis, floribus 5-meris, stylo filiformi longè exserto apice clavato obsoletè bifido.

C. stylosa. *Trin. mem. acad. petrop.* 1818. *p.* 485. *n.* 3. *t.* 11. *DeCand. Prodr.* 4. 587.

A beautiful little herbaceous hardy plant, well adapted for growing in beds so as to form a mass of colour. Thus treated, its numerous heads of bright pink flowers are extremely ornamental. It flowers during the months of June, July, and August, growing about 1½ foot high in any good garden soil.

It was found by the Russians upon rocks among the mountains of the province of Ghilan in Persia.

The name employed in M. DeCandolle's prodromus is retained, but the plant is certainly no Crucianella; and, like C. molluginoides, which is very like it, requires to have some better place found for it.

In the definition of this plant I have retained the name of leaves for all the foliaceous organs that are placed upon the stem in whorls. Nevertheless it is now a very general opinion among systematical writers, that a part only are leaves and the remainder stipules. This view of the subject is that of DeCandolle, Endlicher, Decaisne, and many others whose sentiments are entitled to the greatest respect among Botanists. I have however objected to this theory, upon the ground that if a part of the leaves of each whorl in Galiaceæ were leaf-like stipules, they must bear some fixed proportion to the true leaves : for instance, suppose the whorl to consist of two leaves, each having two stipules, the whole number of parts in that whorl should be six, and in all whorls the number of parts should be some power of three; while in fact no such regularity in proportional numbers can be found in a considerable part of the order. To this it might have been added, that the admitted leaves are so entirely the same as what M. DeCandolle conceives to be stipules, that no difference whatever can in general be found in their form, colour, anatomy, or degree of developement.

Such reasons have however not proved satisfactory to Botanists, who with one accord appear to range themselves upon the side of M. DeCandolle, and recently the question has been more particularly agitated by one of the most distinguished writers of this country.

Mr. Bentham, in an article on Crusea rubra, published in the *Botanist*, page 82, after entering at some length and with great skill into a discussion of the arguments employed on both sides the question, has decided in favour of the opinion of DeCandolle, that a part of the apparent leaves of Galiaceous plants are stipules. The grounds upon which he has arrived at this conclusion are essentially the following ;

1. That the foliaceous organs in Galiaceæ, if viewed as consisting entirely of leaves, do not bear that relation to the angles of the stem which is usual in Dicotyledons; but that the relation becomes apparent if only two of them are taken as leaves and the rest as stipules. (DeCandolle seems influenced by the consideration that it is only two of the apparent leaves which have buds in their axils; but Mr. Bentham does not advert to this.)

2. That in a number of cases, especially in Asperula, two opposite leaves are much larger than the others.

3. That in Spermacoceæ and other tribes, the stipules are connected with the petiole of the leaf into a sheath, and that this sheath exists in Galiaceæ.

4. That the number of parts in each whorl is not neces-

sarily some power of three, but that, taking two of the parts for leaves, it is immaterial by what number of similar parts those two are separated, because the intermediate processes are analogous to the setæ of Spermacoceæ, the number of which is variable.

Perhaps this question is more important in appearance than in reality, for in some respects it is a mere difference about words ; stipules being rudimentary leaves, and leaves developed stipules. It is however connected with some points of speculative interest, especially as regards systematic Botany, and therefore I avail myself of the present opportunity of stating what I conceive to be the objections to Mr. Bentham's line of argument, and why I still retain my original opinion upon the subject.

1. With regard to the relation borne by the leaves to the angles of the stem, it is to be observed that if those foliaceous organs only which are opposite the angles are said to be leaves in Galiaceæ, and the rest stipules, then we must suppose that Labiate plants have no leaves, but stipules only, for in that and similar orders the apparent leaves are never opposite the angles of the stem, but are always placed between them. Nor do I find that the number of angles in the stem of verticillate plants necessarily corresponds with the number of their leaves; for example in Dysophylla stellata, where the whorls often consist of ten parts, the stem has still but four angles. Neither can it be admitted that bodies which do not form branches in their axils are therefore not leaves. All foliaceous organs of whatever kind, and especially stipules, possess that power or not, according to circumstances, as is too well known to require particular proof. Besides DeCandolle's statement is not sustained by fact; for in Asperula the uppermost branches, bearing flowers, are frequently produced alternately with the leaves that form the node from which they spring, and consequently must, in such cases, arise from the seat of one of the supposed stipules. It is more probable that the developement of branches from a portion only of the leaves, is connected with the form of the stem, and the relation which the leaves bear to each other. If the form of the stem requires an alternate developement of a pair or a triplet of opposite

branches, then the first whorl in which the developement takes place will settle the origin of all that succeed it. For example, if in one whorl of six leaves the first, third, and fifth leaves produce axillary buds, then in the whorl next above it, the second, fourth, and sixth leaves will probably be gemmiferous, according to the ordinary laws of decussation. It is plainly impossible to say that what seem to be leaves are in reality stipules, because they have no axillary buds; for if that opinion were maintained, it would be necessary to assign the quality of stipules to a certain portion of the leaves of such verticillate plants as Dysophylla stellata, in which only a part of the whorls ever produces branches.

2. If it is true that in Asperula two opposite leaves are frequently longer than the others, that circumstance may be reasonably ascribed to the greater developement consequent upon their higher functions, and to their peculiar position on the stem; and it is equally true that in the greater part of Galiaceæ no trace whatever of any kind of difference between the leaves can be detected, as is most remarkably the case in those surrounding the flowers of Crucianella maritima.

3. The argument derived from the occasional connection of the leaves by a membrane can hardly be allowed much weight when it is remembered that in such cases the intermediate leaves are less like stipules than in those cases where no membrane exists; compare Asperula cynanchica, or littoralis, or longiflora, with such genuine Crucianellas as C. maritima.

4. The comparison of the supposed stipules of Galiaceæ and the setæ of Spermacoceæ is inadmissible, because the former are at all events single simple organs, be they what they may, while the setæ of Spermacoceæ are the result of the splitting of two parallel-veined stipules, and therefore will necessarily be uncertain in number.

These arguments do not however by any means exhaust the question, and therefore I proceed to make a few additional remarks upon a point not yet adverted to. It is in Asperula, more than in any other genus of the order, that is to be found evidence favourable to the supposition of M. De

Candolle and his followers. In A. longiflora, cynanchica, and some others, the lower whorls are in the usual state, but the upper ones are reduced to two perfect leaves, with one or sometimes two teeth or subulate processes between them, the branches continuing to be produced from the leaves which remain. In this condition the structure of Asperula is so very like that of many Spermacoceous plants that the analogy between them seems indisputable, and I presume that it was such cases which first led to the theory under consideration.

It is however to be remembered that in Galiaceæ the supposed stipules are always what first disappear in the process of reduction in the number of foliaceous appendages; but that in Cinchonaceæ it is in many cases the leaves which are first lost when such a reduction takes place. The latter fact is readily verified upon reference to any of the capitate Spermacoces where the bracts are evidently stipules, and especially to Sp. calyptera, in which the leaves are gradually merged in the large membranous cup that subtends the flowers, while the stipules suffer no diminution. The same circumstance may be observed in several Brazilian Cinchonaceæ allied to Psychotria barbiflora, and in Pæderia fœtida. It is also possible that the large coloured involucrum of Cephaelis is, at least in some cases, formed by the excessive developement of stipules and suppression of the leaves; for such is undoubtedly the case in a Sierra Leone plant in my possession, which I presume is the little known C. bidentata of Thunberg. These facts render it more probable than ever that Galiaceæ and Cinchonaceæ are essentially different Natural Orders; for they would seem to shew that while the first has verticillate foliaceous organs, the most imperfect of which have the greater tendency to disappear; the second has verticillate foliaceous organs, the most perfect of which have the greater tendency to become abortive.

I need scarcely add that after a full consideration of this point I retain my original conviction, that the apparent leaves of Galiaceæ are really leaves, and not stipules; and that the order is as distinct from Cinchonaceæ, as Solanaceæ from Scrophulariaceæ, Verbenaceæ from Lamiaceæ; and I might even add as Cinchonaceæ themselves from Apiaceæ or Umbelliferæ.

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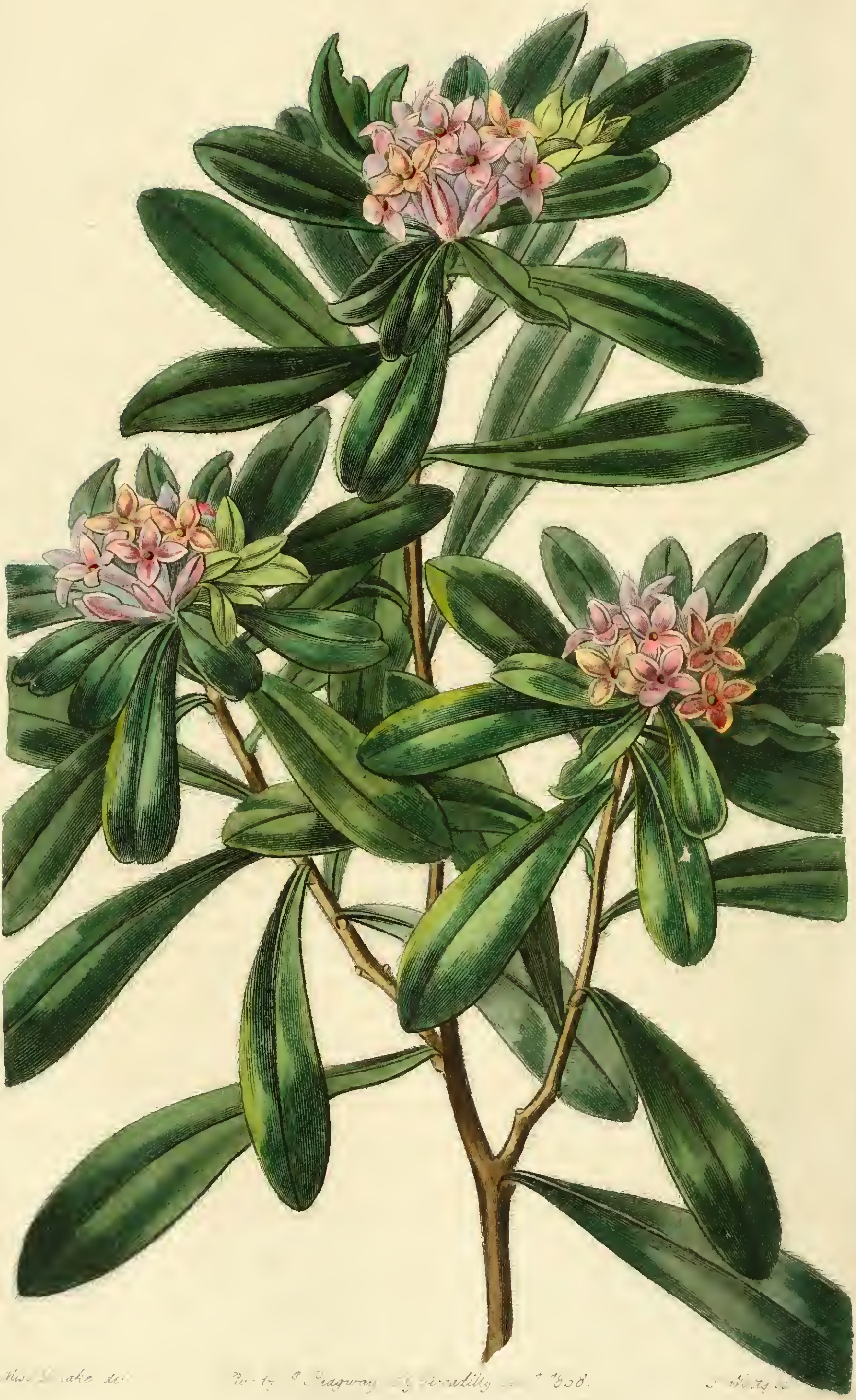

Miss Drake del. Pub. by J. Ridgway 169 Piccadilly [illegible] 1 1838. J. Watts sc.

* DĀPHNĒ australĭs.

Southern Daphne.

OCTANDRIA *MONOGYNIA.*

Nat. ord. THYMELACEÆ.
DAPHNE. *Suprà vol.* 10. *fol.* 822.

D. *australis ;* molliter hirsuta, virens, foliis obovatis obtusis supra lucidis glabris, floribus terminalibus sessilibus sericeo-tomentosis.
D. australis. *Cyrill. plant. rar. fasc.* 3. *ined.* sec. *Tenore Syll. p.* 191.

" This Daphne was raised from seeds gathered near Naples, where it is not uncommon, and known to the gardeners as the Daphne australis of Cirillo; but it is referred to D. collina by Tenore, in his Sylloge Flor. Neap. It differs from the collina of our gardens principally in the much longer and more attenuated leaves, and in a more lax habit of growth.

" The London gardens have another Daphne which goes by the name of D. Neapolitana, somewhat allied to this and collina in general appearance, but with shorter and rounder leaves, perfectly smooth. It is difficult to guess how this last-mentioned plant, which seems to be a good species, acquired its name; the only species of Daphne which grow near Naples, being the very distinct species D. Laureola, Gnidium, Tartonraira (which Prof. Tenore makes a Passerina) and the subject of the present figure.

" The present species has remarkably hairy leaves, and very fragrant flowers, which appear in spring and autumn. It seems to be one extreme of three plants, of which the so called

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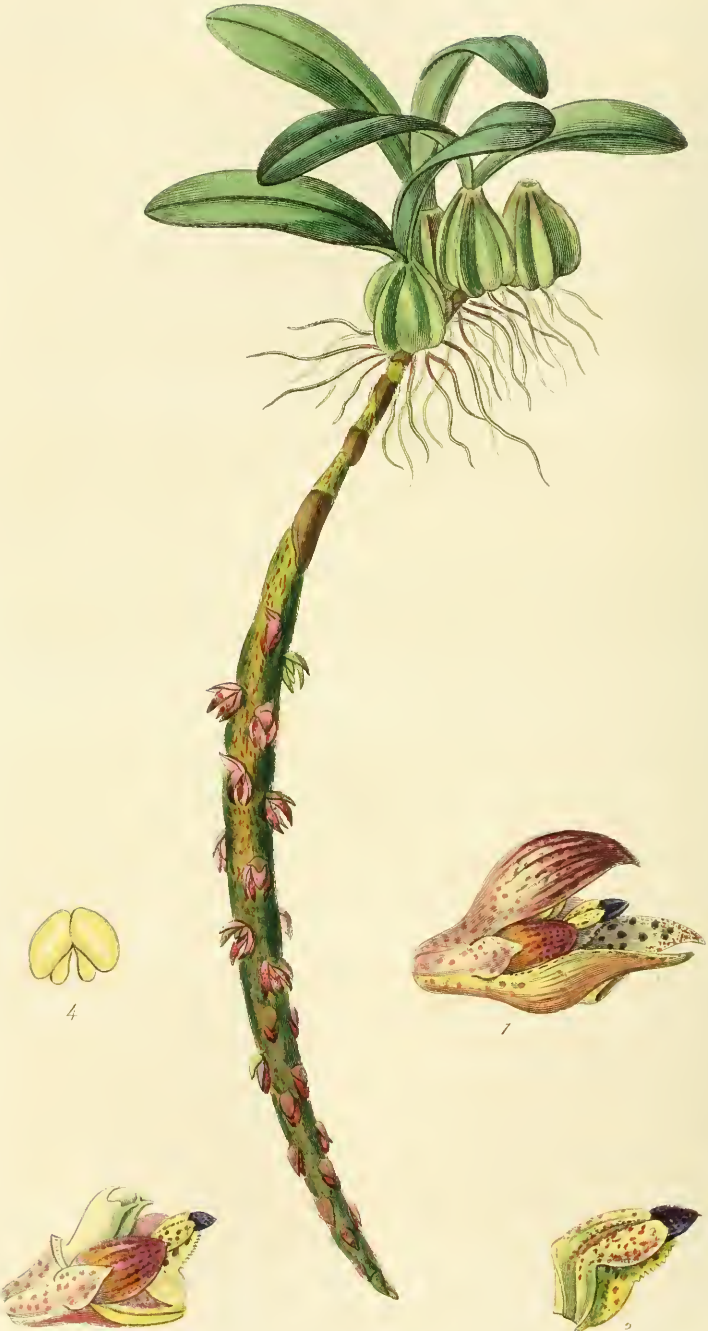
* See folio 1177.

D. Neapolitana is the other, and the common collina the middle.

"D. australis, if we may keep that name, grows in damp, sandy, or marshy coppices which border the lagunes and lower shores of the coast near Naples; in gardens it will stand a great deal of heat in light soil even in that climate, but not in a hard or heavy one. This is also found to be the case with the American Myricas, and some other plants, in the climate of Italy, which in England are imagined not to live without peat earth and shade: and a plant of this genus, D. Cneorum, in its native light calcareous soil of Austria, resists a very considerable summer heat.

"The present species is plentiful on the banks of the lake of Licola, and of the river Volturno and plain of S. Agata, all near Naples. It seems to be perfectly hardy in England."—W. F. S.

The Hon. W. F. Strangways has favoured me with the foregoing memorandum, as well as with the specimen from which the figure of this interesting species has been prepared.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* BOLBOPHYLLUM bracteolatum.

Bracteolate Bolbophyllum.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, MALAXIDEÆ.
BOLBOPHYLLUM. Bot. Reg. vol. 23. *fol.* 1942.

B. *bracteolatum;* pseudobulbis ovatis obtusis tetrapteris diphyllis, foliis angustè oblongis carnosis patentibus, scapo radicali pendulo rachi fusiformi sparsè multiflorâ pluries breviore, floribus carnosis extùs bibracteolatis, sepalis ovatis acutis lateralibus basi connatis, petalis ovatis multò brevioribus, labello solido triquetro acuto canaliculato dorso serrato.

Flores *parvi, rachi duplò angustiores.* Bracteolæ *ovatæ, minutæ, petalorum basi sitæ, ejusdem colore et textura sepali supremi carnei apice atropurpurei.* Sepala *lateralia lutescentia dorso sanguinea.* Petala *lætè purpurea.* Labellum *luteum, sanguineo-punctatum, apice violaceum.*

A most curious little epiphyte, native of Demerara, whence it was obtained by Messrs. Loddiges, with whom it flowered in July 1837. It and B. setigerum, and probably some others offer the singular instance of the existence in America of a genus hitherto discovered only in the Old World.

In habit this species is much like *B. pusillum* and *clavatum,* two species not yet introduced from the Mauritius.

When magnified the flowers are beautifully variegated with flesh-colour, yellow, red, and violet, but what is more remarkable there exists on each side of the flower, at the base of the petals, a small ovate bract, the rudiment of which is also met with in B. setigerum, in the form of a minute tubercle. This additional part has never before been noticed in the order, and is possibly the explanation of the true nature of the exterior series of floral organs found in Epistephium. It would, therefore, seem as if the ordinary condition of the flowers of Orchidaceæ were in a sort of middle state between two extremes, of which Epistephium is the most complete, and Monomeria, in which there are no petals, the most imperfect.

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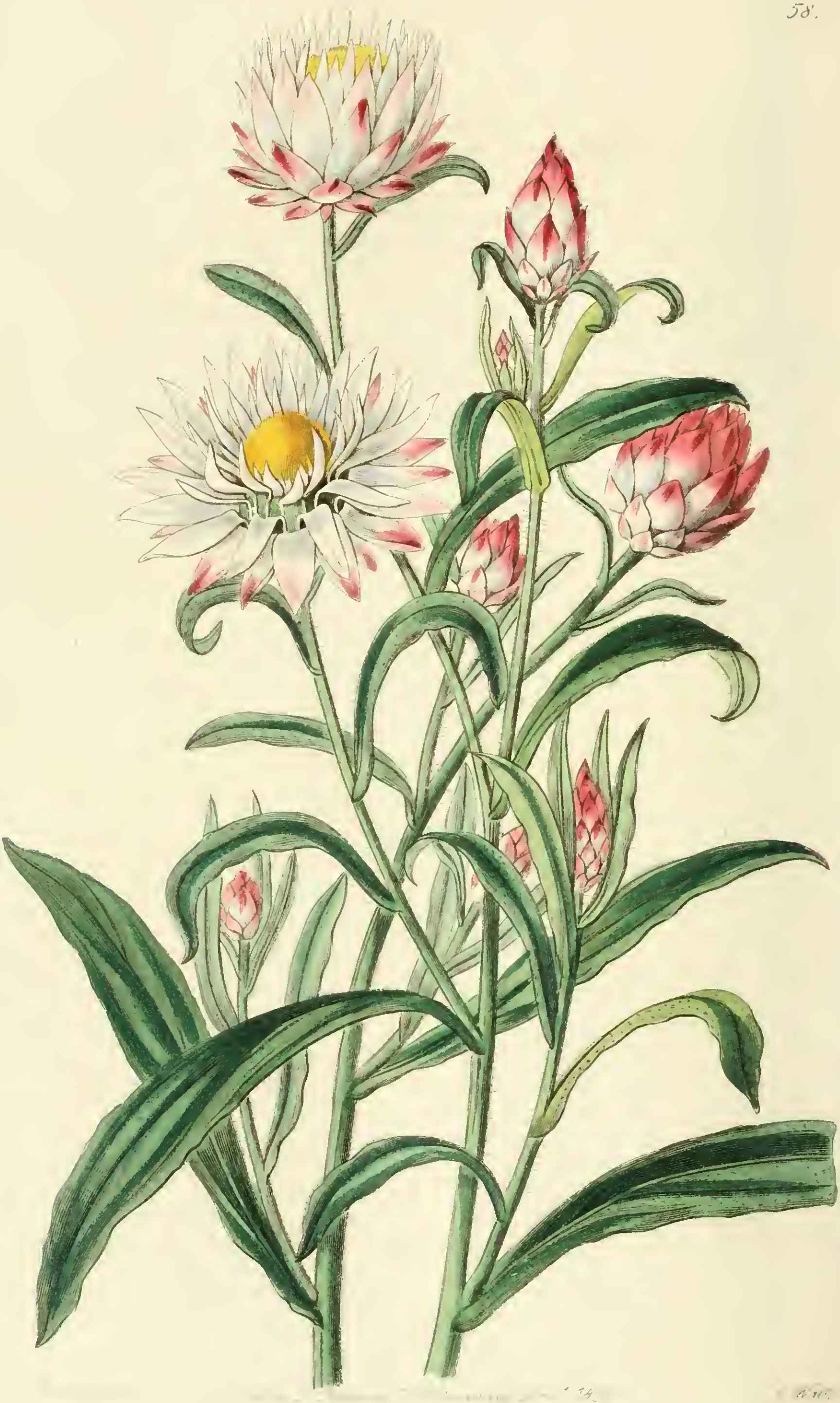
* See folio 1942.

Fig. 1. represents a flower viewed from the side; 2. is the same, with the sepals cut away so as to expose the petals, lip, and column; 3. is a labellum, seen a little from within; 4. are the four unequal pollen-masses.



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*HELICHRYSUM macranthum.

Large-flowered Helichrysum.

SYNGENESIA *POLYGAMIA SUPERFLUA.*

Nat. ord. ASTERACEÆ, or COMPOSITÆ.
HELICHRYSUM. *Suprà vol.* 1. *fol.* 21.

H. *macranthum;* caule herbaceo ascendente v. erecto subsimplici scabro apice monocephalo, foliis oblongo-lanceolatis v. infimis spathulatis obtusis integerrimis basi in petiolum angustatis et amplexicauli-dilatatis utrinque viridibus scabris, capitulo magno niveo extùs subroseo, squamis interioribus radiantibus latè ovatis obtusis mucronulatis, receptaculo nudo, pappo scabro. *Bentham in Hügel's Enumeratio, p.* 65.

The Swan River colony is "the land of promise" for collectors of beautiful plants. What it produces is in part known from the species already from time to time introduced, chiefly through the exertions of Captain James Mangles, R. N. but what remain behind are far more inviting. None but a Botanist, who has examined the dried specimens obtained from this favoured spot, can imagine how lovely is its Flora, what numbers of species, blushing with the most delicate colours, or glowing in all the richness of a climate where the sun is never clouded, still exist there unknown to any but the settler and the savage. All these will find their way to our gardens—by slow degrees, if the attempts at introducing them are confined to one or two individuals—but quickly, if those who have friends and relations in the colony will bestir themselves.

How well they would be repaid for their endeavours may be learned from this beautiful everlasting-flower, common in the colony, and only seen for the first time, a few months ago, flowering in the garden of Robert Mangles, Esq. of Sunning Hill. Anxiety to secure the plant, before it could be lost again, caused the accompanying drawing to be executed rather too soon in the season, before the flower-heads had reached their full size. Later in the summer they became much larger, but lost in some measure their delicate rose-coloured tips.

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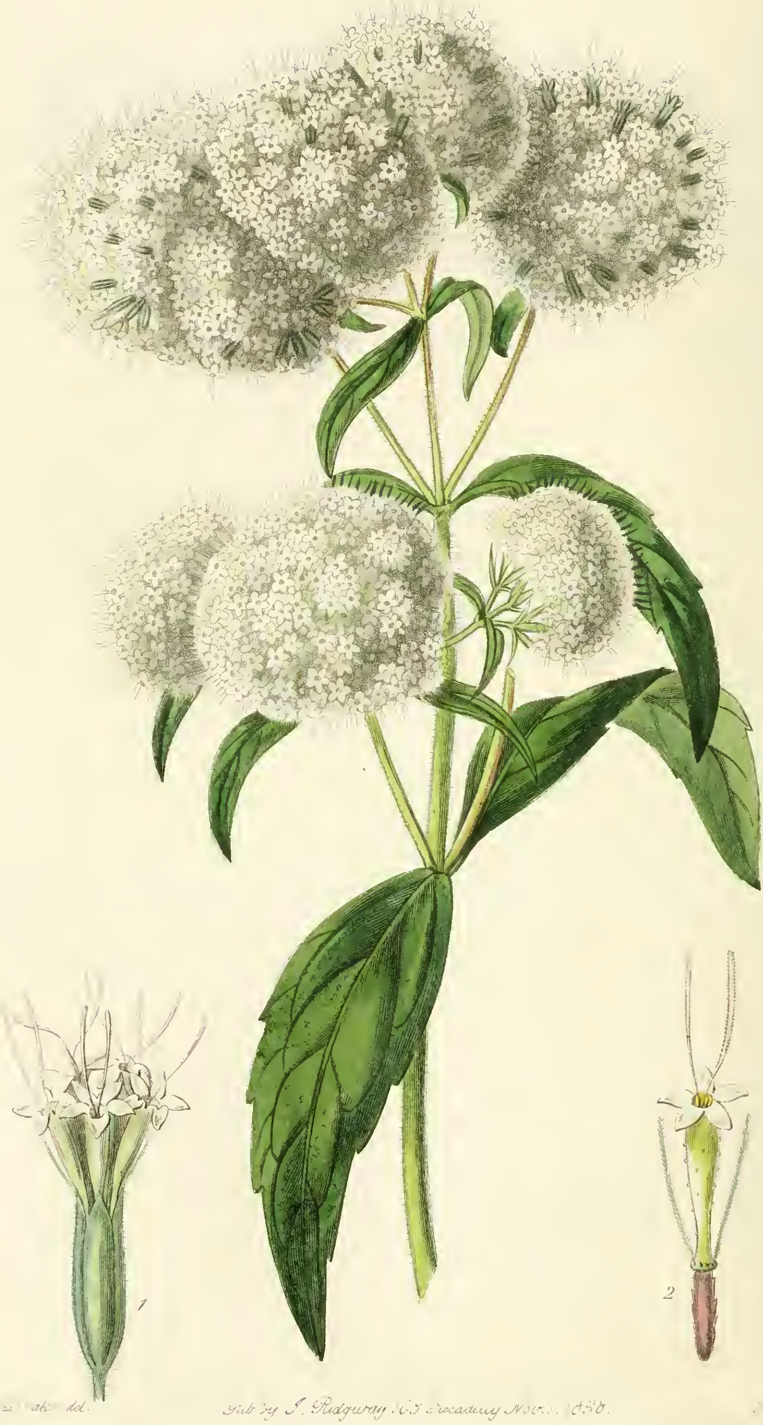
* See fol. 1814.

The species is an annual, and is propagated by seeds.

59.



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STĒVĬĂ fasciculārĭs.

Close-headed Stevia.

SYNGENESIA *POLYGAMIA ÆQUALIS.*

STEVIA. *Suprà vol.* 2. *fol.* 93.

S. *fascicularis;* caule herbaceo, foliis oppositis rhomboideo-lanceolatis profundè et argutè serratis vix pilosiusculis, superioribus sessilibus, ramis inflorescentiæ fastigiatis aut subfastigiatis plerisque oppositis, capitulis fasciculatim congestis, corollis glabris, pappo florum cujusque capituli sæpiùs duorum brevi paleaceo, aliorum triaristato. *DeCand. Prodr. v.* 5. 120. *Lessing in Linnæa,* 1830. *p.* 140.

Caulis *pubescens.* Fasciculi *capitulorum sphærici, albi.* Corolla *tubo aspero.* Aristæ *palearum duæ.* Achænium *denticulatum.*

A native of Mexico, whence the seeds which produced the plants now figured were imported by George Frederick Dickson, Esq. F. H. S. and presented to the Horticultural Society.

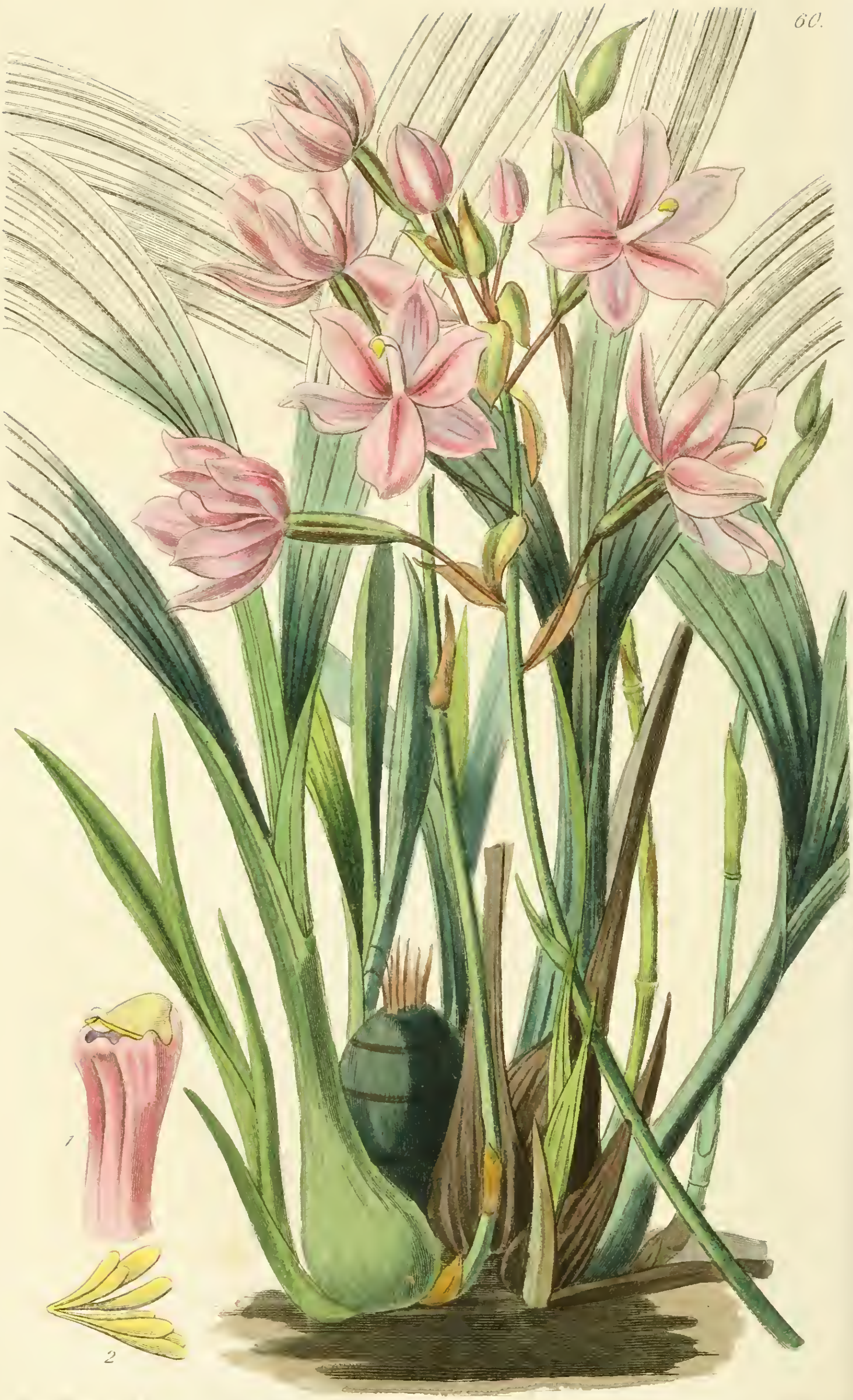
It is a pretty, sweet-scented, greenhouse, herbaceous plant, flowering in the latter months of the year.

Nothing is more easy than its cultivation. It will grow in any soil, and is readily multiplied by cuttings.

In some respects it is at variance with the character given by Lessing to his S. fascicularis; yet it seems hardly different.

Fig. 1. represents a capitulum, in the flowering state, magnified; fig. 2. is a floret, with two setæ among the pappus.

60.



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* PAXTŌNĬĂ rŏsĕă.

Pink Paxtonia.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Malaxideæ.

PAXTONIA. *Perianthium* patens, hexaphyllum, æquale; labello petalis conformi. *Columna* erecta, teres, subclavata, petalis paulò brevior. *Anthera* terminalis, opercularis, decidua. *Pollinia* 8, angusta, clavata, apice cohærentia. *Stigma* rima transversa, verticalis, sub rostello.——*Herba* cæspitosa, pseudobulbosa, *foliis* plicatis, *racemo* multifloro radicali foliorum longitudine.

P. rosea. *Suprà misc. p.* 61. *no.* 113.

Pseudobulbi *densè aggregati, oblongi, cicatricibus foliorum annulati, 3-phylli.* Folia *lanceolata, plicata, basi angustata, subpedalia, basi squamis ovatis concavis acutis fuscis vaginata.* Scapus *erectus, radicalis, foliorum longitudine, calami scriptorii crassitudine, squamis* 2-3 *ovatis distantibus vaginati.* Bracteæ *ovatæ, acutæ, patulæ, pedicellorum longitudine.* Flores *rosei, ferè sesquiunciam lati ; pedicellis gracilibus ovarii longitudine.* Sepala *et* petala *conformia, æqualia, oblonga, acuta,* 3-4 *lineas lata ;* labello *antico.* Columna *erecta, teres, anticè paulò complanata, apice subclavata, rosea, petalis brevior ;* clinandrium *margine crasso sublobato.*

This curious plant was sent to Messrs. Loddiges, from Manilla, by Mr. Hugh Cuming, who has been for some time engaged in exploring the Philippine Islands. It is so entirely different from all Orchidaceous genera hitherto discovered, that I know not with what to compare it.

In this natural order there are two organs essentially at variance with the usual structure of plants, namely, the column and the lip. The former, consisting of stamens and style consolidated, has never yet been found in a state of disintegration ; but the latter, to whose numerous forms, and irregular varieties, the grotesque appearance of Orchidaceous

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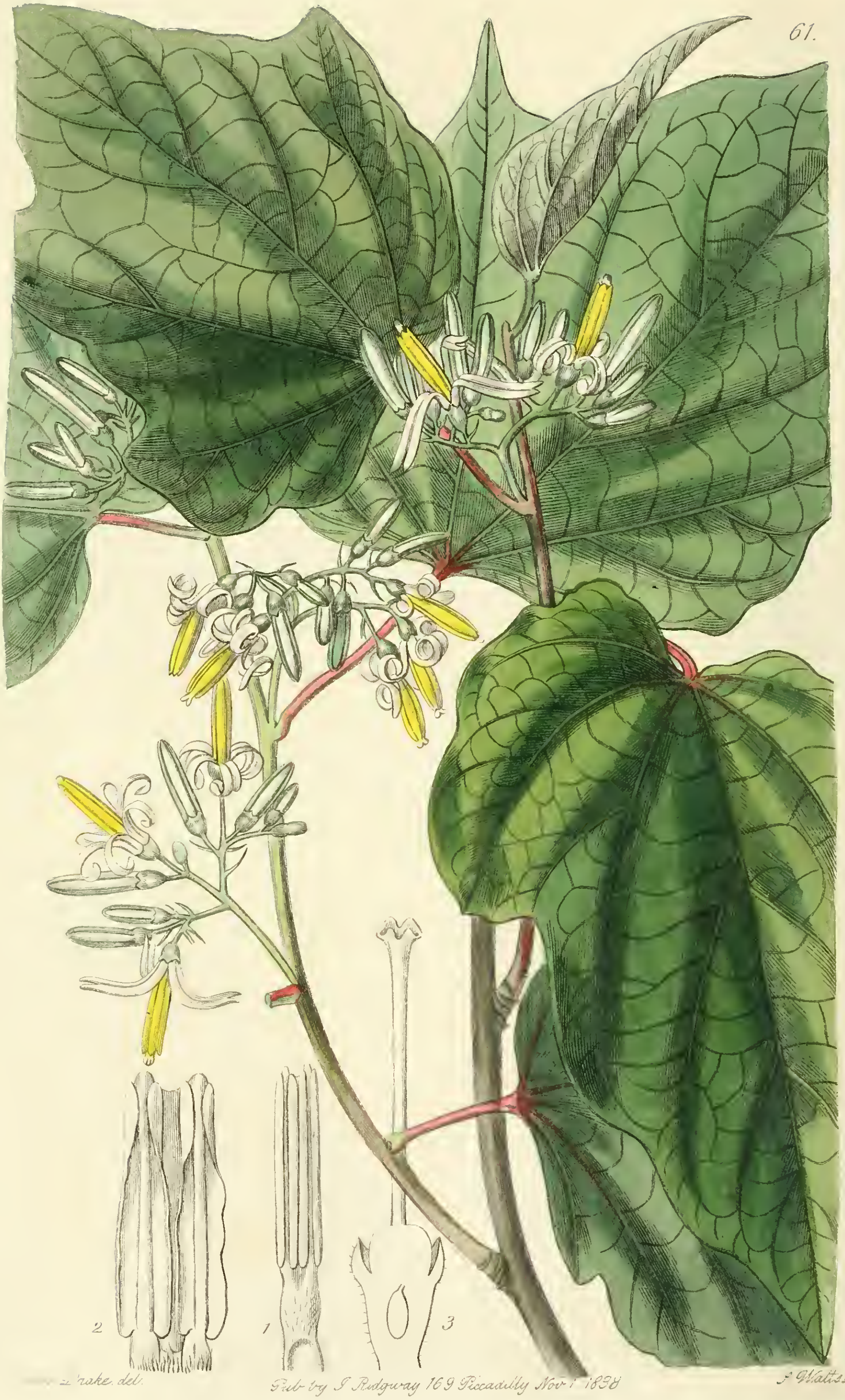
* Suprà misc. p. 61, no. 113.

flowers is usually owing, assumes a regular structure in a few cases, of which this is one of the most striking. In this genus the lip is so much like the other petals, that it is only to be recognized by its position. Thelymitra, Hexisea, Isochilus, and such others as have been previously discovered with this character, are so extremely unlike Paxtonia in other respects that it is not worth instituting any comparison between them.

61.



Drake del. Pub by J Ridgway 169 Piccadilly Nov 1 1838 J Watts sc

* MĀRLĔĂ begonifŏlĭă.

Begonia-leaved Marlea.

SYNGENESIA *MONOGAMIA.*

Nat. ord. ALANGIACEÆ.

MARLEA, *Roxb.* *Calyx* 6-dentatus. *Petala* 6. *Stamina* 6, per paria cohærentia; *antheris* linearibus, obtusis, in tubum connatis; *filamentis* basi foveatis. *Stigma* 4-lobum. *Drupa.*

M. begonifolia. *Roxb. Fl. Ind.* 2. 261.

A small tree inhabiting Sylhet, where it yields a timber employed by the natives in the construction of their houses, flowering in April and ripening fruit in July, according to Dr. Roxburgh.

It has long been in our gardens; I have before me a specimen, dried in the Cambridge Botanic Garden by Donn, at least as early as the year 1805; it has, however, not found its way before into any work containing figures of plants.

It is a stove shrub, of no great beauty in its flowers, but with a good healthy foliage, and is at once recognized by the leaves being oblique at the base, with red petioles and reddish veins. Its chief interest consists in its forming an illustration of the small natural order called Alangiaceæ.

Roxburgh describes the fruit as a drupe with a two-celled nut. I have however found only one pendulous ovule in the ovary, as is shewn at fig. 3.

Fig. 1. represents a pair of anthers united, with a large excavation or pit at the base of their common filament;

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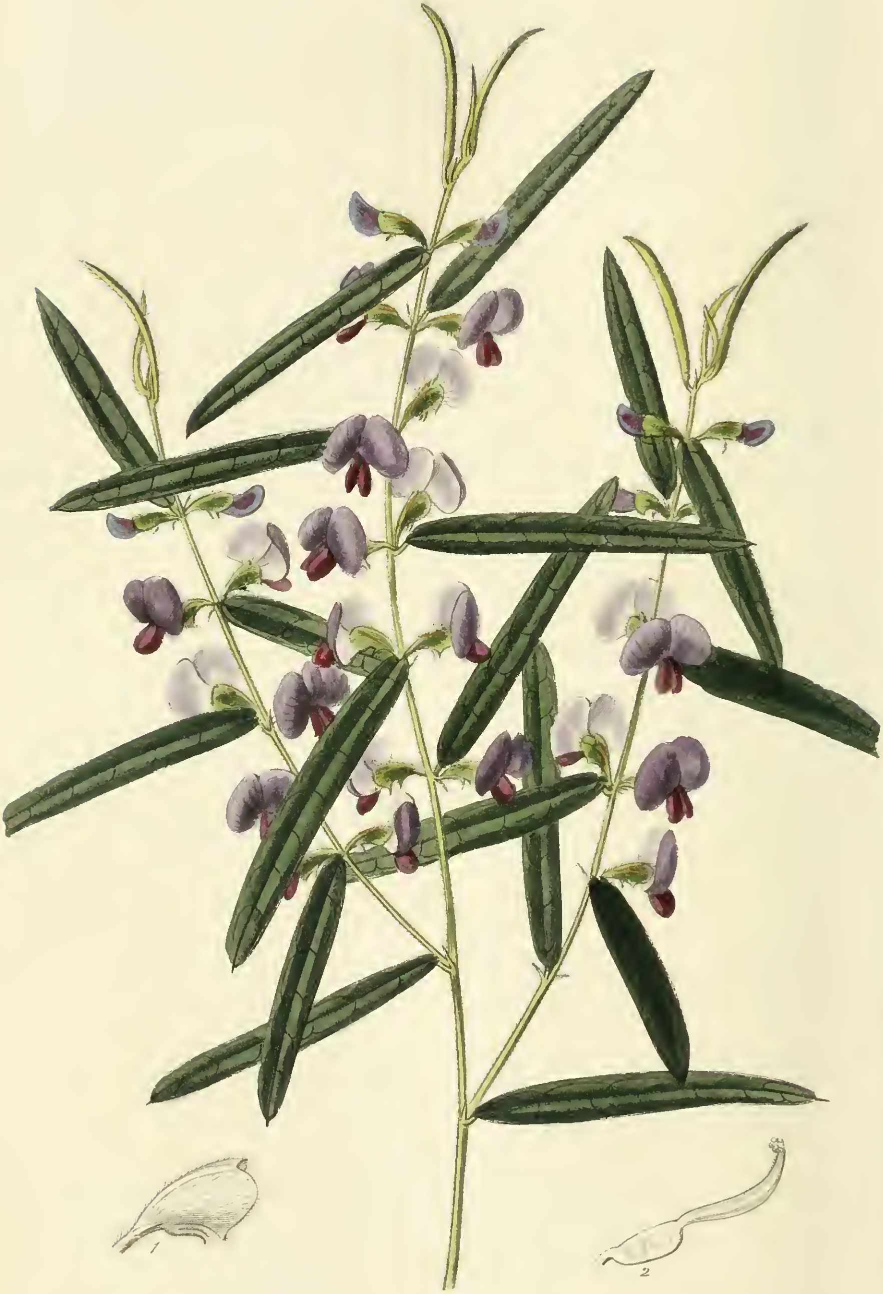
* Marlea is the vernacular name in Sylhet.—*Roxb.*

fig. 2. shews the same anthers much more magnified; fig. 3. is a view of the stigma, style, and a vertical section of the ovary, with the solitary pendulous ovule, as it was found in the specimens I examined.



[illegible] Ridgway Piccadilly Nov: 1 1838

S. Watts sc.

* HŌVĔĂ Manglēsiĭī.

Captain Mangles's Hovea.

DIADELPHIA *DECANDRIA.*

Nat. ord. LEGUMINOSÆ, § PAPILIONACEÆ.
HOVEA. Suprà vol. 4. *fol.* 280.

H. *Manglesii;* foliis linearibus mucronatis margine revolutis supra reticulatis glabris subtùs pilis laxis torulosis vestitis, stipulis setaceis, floribus geminis axillaribus sessilibus, ovario sessili trispermo.

Frutex *erectus, gracilis, ramosus,* ramulis *filiformibus, pilis appressis torulosis densè vestitis.* Folia *linearia, setaceo-mucronata, breviter petiolata aut subsessilia, supra reticulata glabra, subtus pilis longis torulosis laxis vestita ;* stipulis *setaceis, petiolorum longitudine.* Flores *sessiles, gemini, divergentes.* Calyx *villosus,* labio superiore *maximo, obsoletè bilobo, lobis rotundatis,* inferiore *minimo trifido.* Vexillum *rotundatum, emarginatum, purpureum, dorso pallidum ;* alæ *oblongæ, obtusæ, magis sanguineæ.* Ovarium *sessile, glabrum;* ovulis *tribus ;* stylo *lineari, compresso, falcato, sub stigmatis simplicis margine superiore pilosiusculo.*

A branch of this was communicated by Robert Mangles, Esq. of Sunning Hill, so long since as January, 1837, at which period it flowered for the first time. Subsequently wild specimens from Swan River have been put into my possession by Captain Mangles, R. N. after whom the species is named.

It was not till the latter were examined that I was able to satisfy myself of this plant being distinct from *H. lanceolata,* of which a supposed variety with linear leaves is figured in the Botanical Register, fol. 1427. It now appears that the hairiness of the under-side of the leaves is quite different ; in the latter the hairs are short and straight, with

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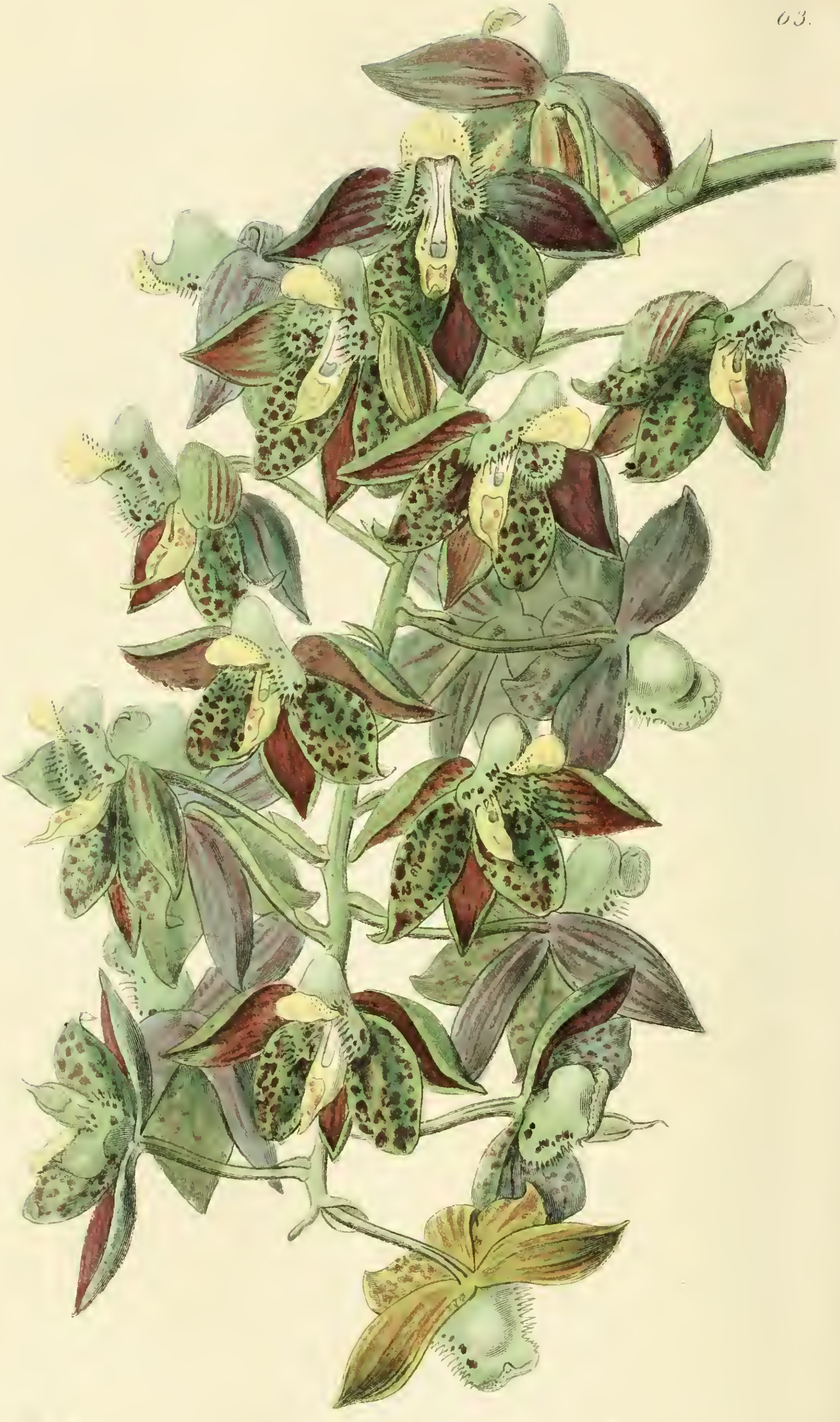
* See folio 1423.

a distinct glandular base, while here they are long, entangled, torulose, and are scarcely at all glandular at the base.

A greenhouse shrub, requiring plenty of air and light, but not particularly delicate. It is readily increased by cuttings.

In the wild specimens the leaves are nearly twice as narrow as in the accompanying figure. The species appears very near *H. trisperma* of Mr. Bentham, but differs in its ovary being sessile.

63.



[illegible] Drake del

Pub by J. Ridgway 169 Piccadilly Nov. 1 1838

S Watts sc

* CATASĔTŪM atrātūm.

Dark-flowered Catasetum.

GYNANDRIA *MONANDRIA*.

Nat. ord. ORCHIDACEÆ, § VANDEÆ.
CATASETUM. Suprà vol. 10. *fol.* 840.

C. *atratum ;* racemo decurvo, sepalis petalisque patentibus ovatis acutis, labello carnoso cucullato margine tenui pectinato apice rotundato reflexo crasso denticulato. *Bot. Reg.* 1838. *misc. no.* 114.

A very distinct species of this curious genus, imported by Messrs. Loddiges from Brazil. The flowers are gracefully drooping, and are among the handsomest of the genus.

Had this been known when the now-abolished genus *Myanthus* was proposed, that error would not have been committed, for the species is neither exactly a *Myanthus* nor exactly a *Catasetum.*

It is unnecessary to do more than refer to folio 1951 of this work for an explanation of the reasons which led to the union of these genera, and to the further suppression of *Monachanthus* and *Mormodes.* But there is a circumstance observed by Mr. Schomburgk in connection with them which is very curious, and deserves to be recorded. In a letter I received from him some time since, he says, alluding to *Monachanthus,* " are you aware that *Catasetum* and *Myanthus* are not seed-bearing, but that Monachanthus bears seed abundantly ?" I do not know what conclusion to draw from this statement; but it would be a most curious fact if, as Mr. Schomburgk's observation would appear to imply, the species of Catasetum and Myanthus should prove to be sterile states of Monachanthus.

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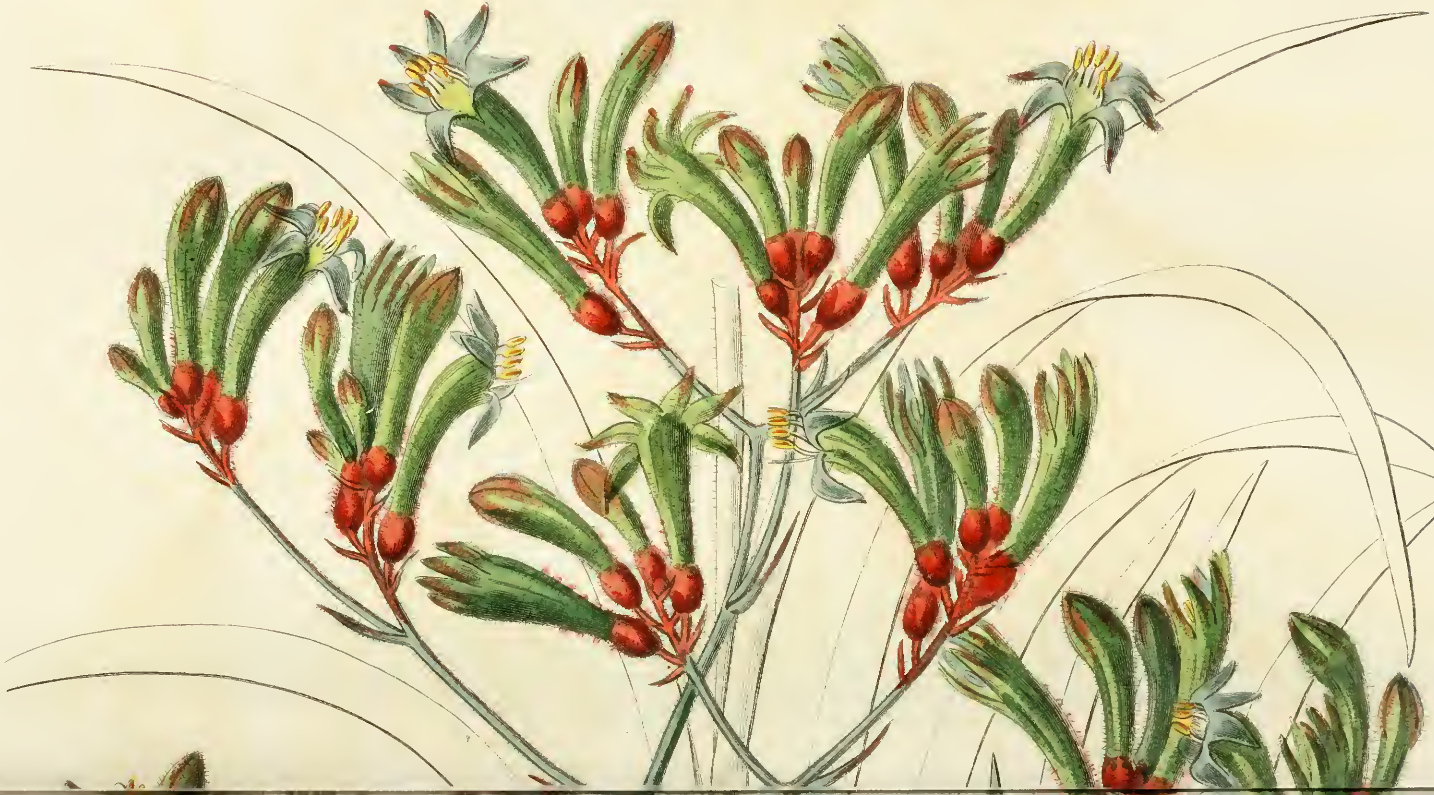
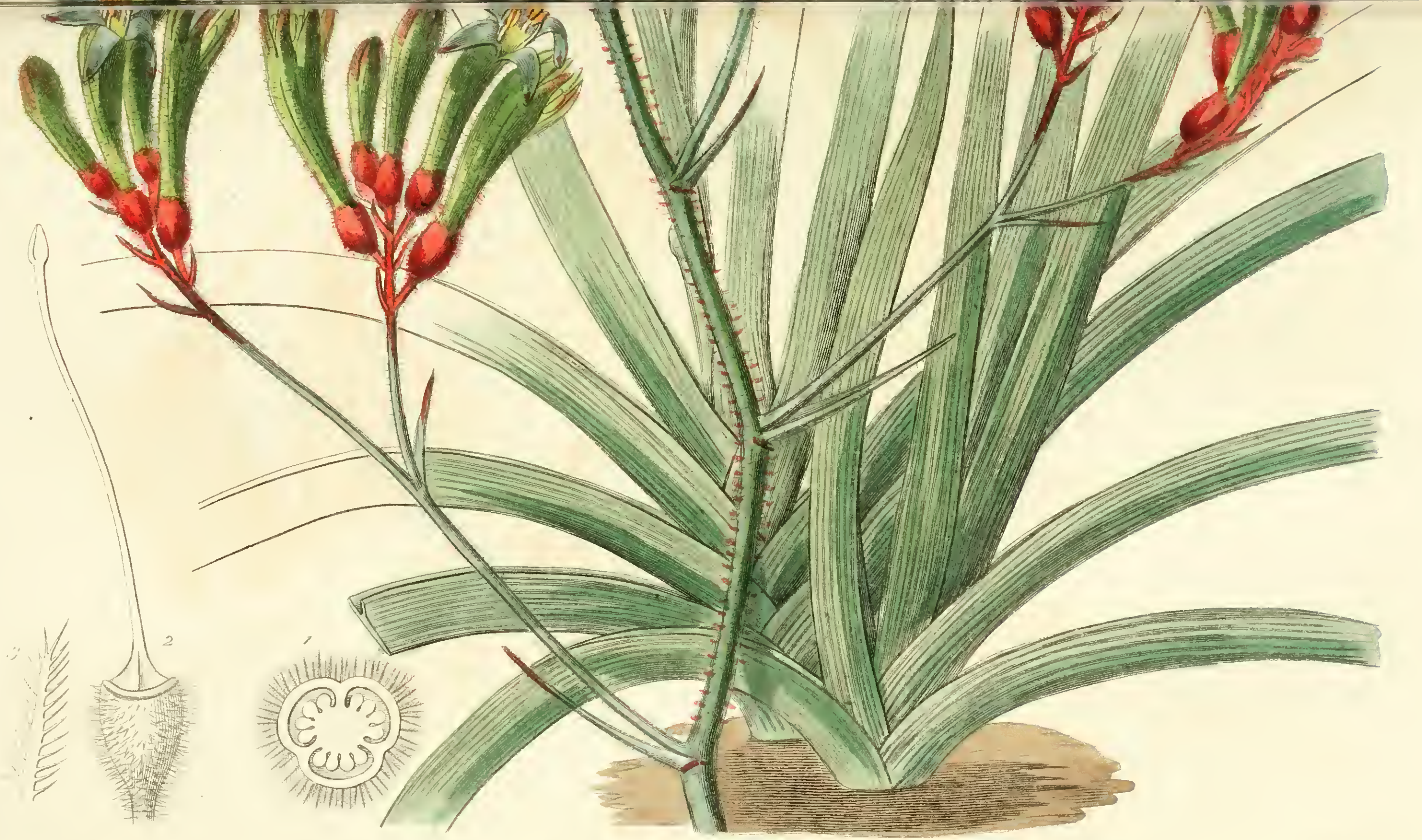
* See folio 1667.





[illegible] nat. del

[illegible] J. Ridgway [illegible]

ANIGOZĀNTHŬS flāvĭdă; *var.* bicolor.

Two-coloured yellow-haired Anigozanthus.

HEXANDRIA *MONOGYNIA.*

Nat. ord. HÆMODORACEÆ.
ANIGOZANTHUS. Bot. Reg. vol. 23. *fol.* 2012.

A. flavida. *Suprà t.* 37. cum synonymis.
Var. bicolor; foliis latioribus, paniculâ ramosissimâ, ovario coccineo, perianthii tubo viridi.

This is the plant alluded to at plate 37 of this volume, as a strikingly beautiful variety of the whole-coloured *A. flavida;* and it will now be seen to deserve the particular notice of the cultivators of ornamental plants.

Scarlet and green are by no means often intermingled in the flowers of plants; and when they are, the union is not always agreeable. In this instance, however, the two are so harmoniously blended and softened together, that a singularly rich effect is the result. It would appear to be the property of the other species of this genus to vary thus, for I have wild specimens of *A. Manglesii,* for which I am indebted to Captain James Mangles and Mr. Andrew Toward, of which one is all green, and the other two-coloured, as in its common garden state.

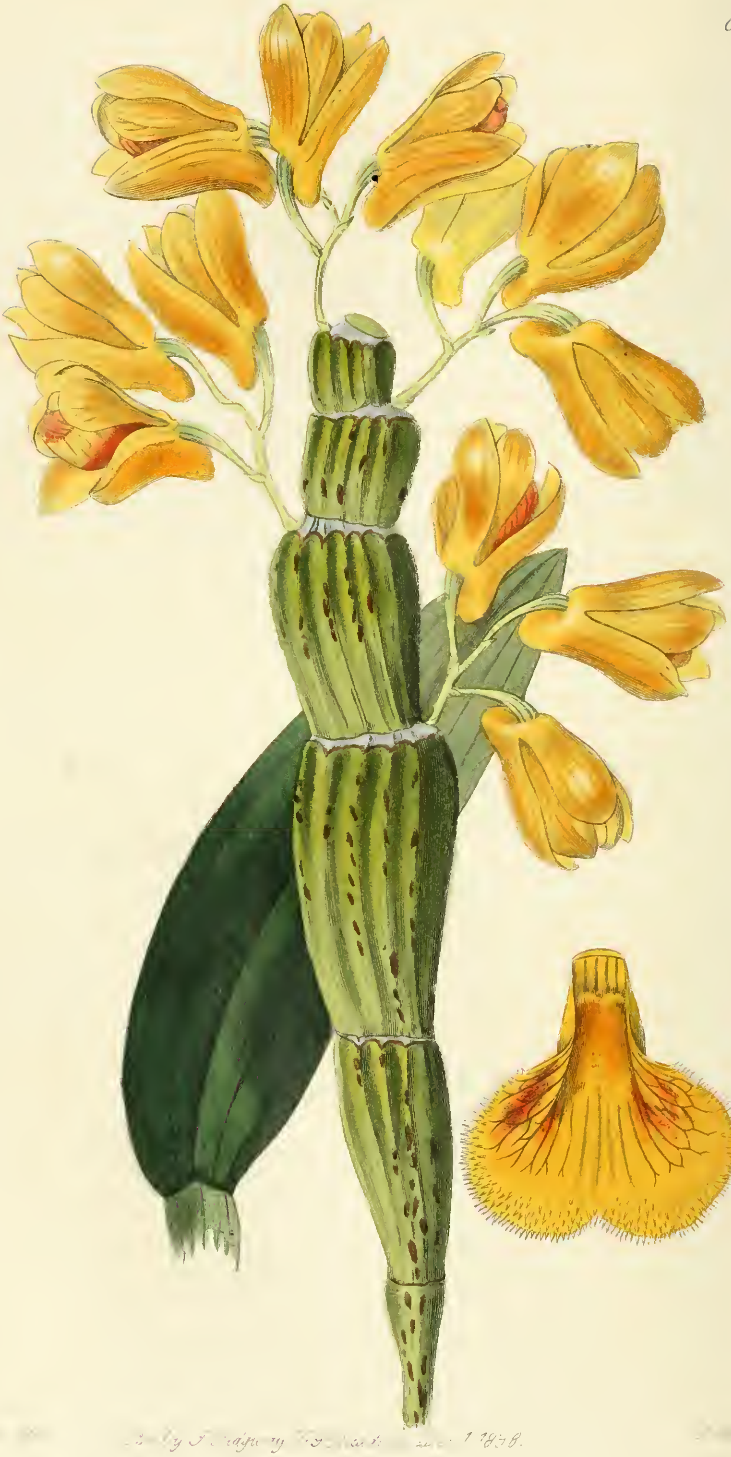
The panicle of this plant is much more divaricating than in A. flavida, and that character might have been looked upon as sufficient to entitle it to rank as a distinct species, had it been accompanied by any other difference besides that of colour; but I have sought in vain for any further peculiarity.

December, 1838.

Fig. 1. represents a transverse section of an ovary; 2. the ovary, style, and stigma; 3. one of the curious branched hairs much magnified.

When seeds of this species are obtained, they should be sown in light soil, and placed in a cool pit or frame. The best time to sow them, is early in autumn or in spring. The plant may also be multiplied by taking off the side shoots, which will root freely in sand. It must have plenty of pot-room, and a considerable quantity of water when it is growing luxuriantly. If cultivated in a greenhouse it should be placed in a light and airy situation, but it will succeed very well if planted out in a pit which is sufficiently protected during winter. The best soil for potting is a rich loam, mixed with peat and sand.

65.



[illegible] by J. Ridgway [illegible] 1 1838.

DENDRŌBĬŪM sulcātum.

Furrowed Dendrobium.

GYNANDRIA *MONANDRIA.*

Nat. ord. ORCHIDACEÆ, § MALAXIDEÆ.
DENDROBIUM. *Bot. Register, vol.* 7. *fol.* 548.

§ IV. *Caules undique foliosi versus apicem sensim incrassati undè clavati fiunt.*

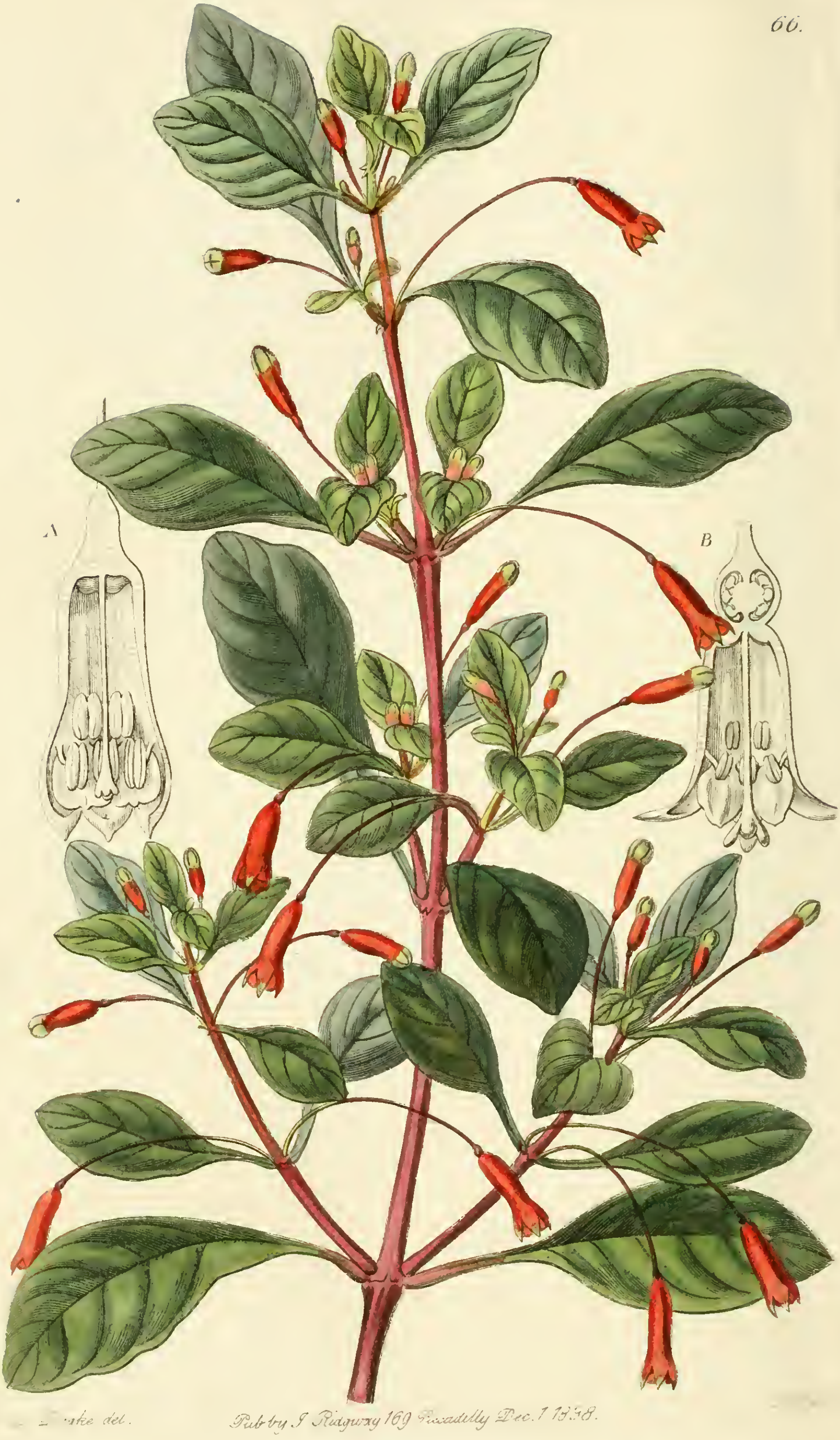
D. *sulcatum;* caule clavato sulcato subflexuoso compresso, foliis oblongis acutis 3-nerviis, pedunculis lateralibus trifloris, bracteis minimis acutis appressis, petalis oblongis obtusis glabris sepalis subæqualibus, labello obcordato hirsuto ungue canaliculato sulcato.

A native of India, whence it was obtained by Mr. Gibson for His Grace the Duke of Devonshire. The drawing was made from a specimen which flowered at Chatsworth in April last.

It is a fine species, nearly related to D. Griffithianum, from which it differs in its three-flowered peduncles, and in the form of the lip,

Its cultivation differs from that of many species belonging to this order. At certain seasons the plants will manifest an inclination for growth; they must then have plenty of water and be freely syringed over-head. When the growing season is over, the leaves will become yellow, and finally drop off; water must then be discontinued, the temperature lowered, and the plants allowed a season of rest. After remaining in this state for a few weeks, the temperature may again be raised, and the plants—which by this treatment will have been rendered exciteable—will come freely into flower. Water need not be given until the plant begins to shoot from below, when it will require the same treatment as before. Of course it is to be cultivated in a stove or orchidaceous house. The soil is the same as is used for other plants of this kind, namely, turfy peat.

It is propagated by division; but where only a small piece of a pseudo-bulb can be obtained, it will frequently send out young plants from its joints, which can be taken off, potted, and treated in the same manner as is recommended above.



Drake del.

Pub by J Ridgway 169 Piccadilly Dec. 1 1838.

FŪÇHSĬĂ cylindrācĕă.

Cylindrical-flowered Fuchsia.

OCTANDRIA *MONOGYNIA.*

Nat. ord. ONAGRACEÆ.
FUCHSIA. Bot. Reg. vol. 10. *fol.* 847.

§ ENCLIANDRA (Zuccar.) *staminibus inclusis, floribus polygamis.*

F. *cylindracea* (Suprà misc. no. 97.); dioica, foliis obovatis petiolatis obtusis integerrimis, pedicellis filiformibus solitariis axillaribus unifloris, calyce cylindraceo, petalis subrotundis apiculatis calyce brevioribus, antheris inclusis.

Frutex *sub-glaber, erectus, ramis purpurascentibus, subtetragonis.* Folia *opposita, obovata, obtusa vel acuta, in petiolum valdè angustata.* Pedunculi *filiformes, pilis patentibus sparsè vestiti, in mare petiolis multò in fœmina vix longiores.* Flores masculi *coccinei, sparsè pilosi, tubo cylindraceo, lævigato; limbo valvato, 4-dentato.* Petala *subrotunda, apiculata, calyce breviora.* Antheræ *inclusæ, oblongæ, biseriatæ, ordine inferiore subsessili.* Ovarium *nullum, nisi apophysis clavata;* stylus *rectus, filiformis;* stigma *clavatum, obtusum, 4-dentatum, inclusum.* Flos fœmineus *duplò minor, pedicello petiolo parùm longiore.* Petala *magis ovata, nec apiculata.* Antheræ *minores, cassæ.* Ovarium *subrotundum, 4-loculare, polyspermum;* stigma *multò majus, exsertum.*

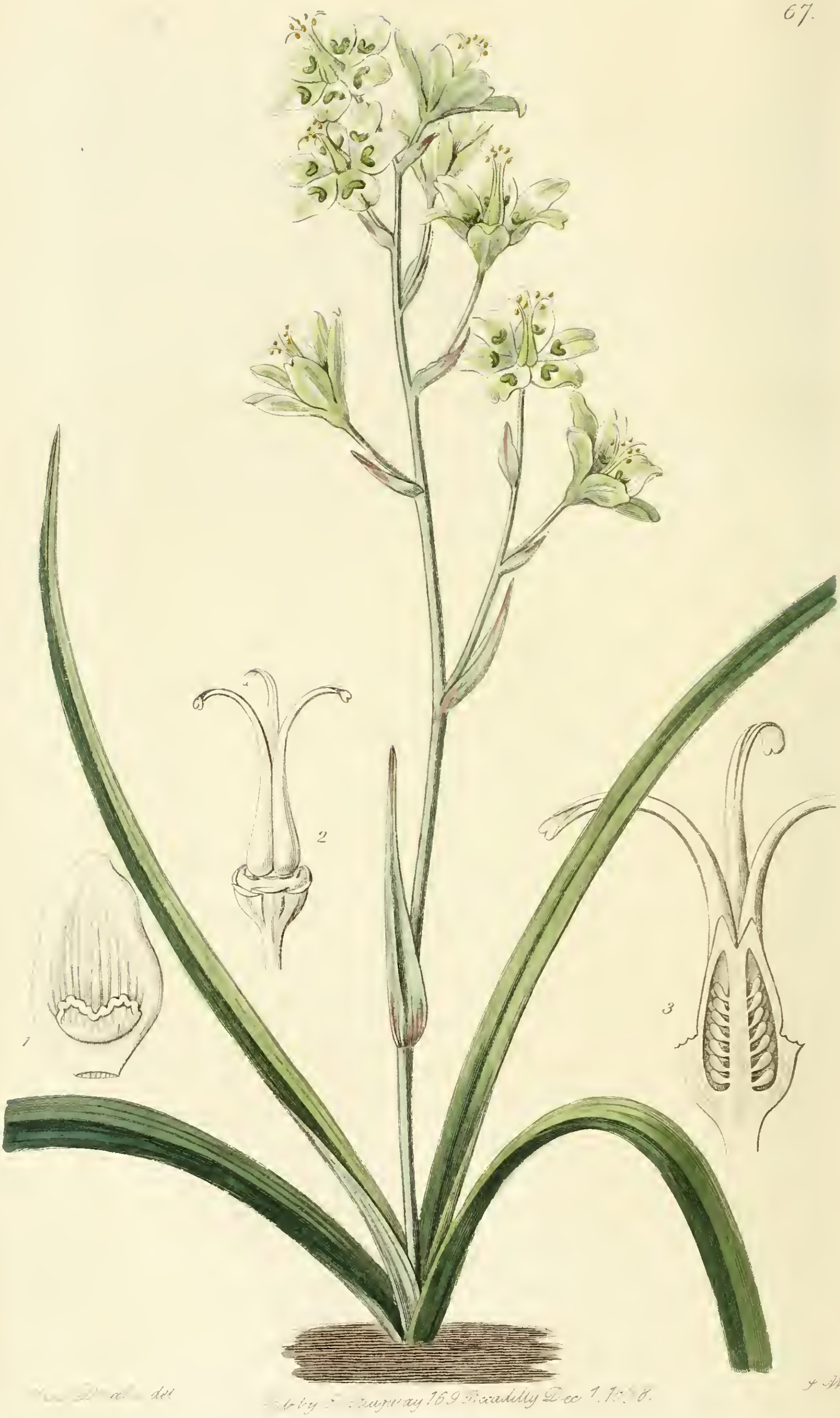
This pretty plant has been already noticed at No. 97, of the miscellaneous matter of this volume, as having been raised from Mexican seeds presented to the Horticultural Society by George Barker, Esq. of Birmingham. It is a species with a graceful habit, and remarkably brilliant flowers; and will probably be found useful as a means of improving the colour of some of the more showy species with long stamens and larger flowers, which want brilliancy in consequence of there being naturally a dash of purple among their red.

In case this object should be attempted, it will be necessary to remember that the species is diœicous, some of the individuals being entirely male, and others entirely female; the latter are the less showy of the two, their flowers not being half the size of those of the males. This is a very singular fact in such a genus as Fuchsia.

It is not however here that the tendency to a separation of the sexes is for the first time remarked. According to Professor Zuccarini all the small-flowered Mexican species, with enclosed stamens, are polygamous, and this has no doubt influenced that distinguished Botanist in separating them from Fuchsia, under the name of *Encliandra*, (ἐγκλείω I enclose, and ἀνὴρ a male). Whether or not such characters suffice to constitute a genus separate from Fuchsia is doubtful, but at all events they form an excellent sectional distinction.

Fig. A. is a section of a male flower; B. of a female.

67.



Miss Drake del   Pub by J. Ridgway 169 Piccadilly Dec 1. 1838.   J. Watts sc.

* ZIGADĒNŬS glaūcŭs.

Glaucous Zigadenus.

HEXANDRIA *TRIGYNIA.*

Nat. ord. MELANTHACEÆ.

ZIGADENUS, Michx. *Perianthii* foliola biglandulosa, sessilia. *Flores* hermaphroditi. *Filamenta* libera. *Antheræ* subuniloculares.

Z. *glaucus;* bulbo tunicato, foliis caule brevioribus linearibus vix acutis, racemo subsimplici, bracteis lanceolatis pedicellis brevioribus, perianthii foliolis ovalibus obovatisve obtusis glandulâ obcordatâ instructis. *A. Gray Melanth. Am. sept. revis. in ann. Lyc. hist. nat. Novebor.* 4. 113.
Zigadenus chloranthus. *Richardson in Frankl. journ. ed.* 2. *p.* 12.
Z. glaucus. *Nutt. in journ. acad. Philad.* 7. 56.
Z. commutatus. *Röm. & Sch. syst.* 7. 1559.
Melanthium glaucum. *Nutt. gen.* 1. 232.
Leimanthium? glaucum. *Röm. & Sch. l. c.* 1551.

The preceding synonymes of this plant are extracted from a valuable paper on N. American Melanthaceæ, by Dr. Asa Gray.

It appears that the species extends from Canada and Kotzebue's Sound as far as Arkansa and Oregon. Dr. Gray saw specimens collected on the high plains near the rivers Platte and Multnomah; I possess others gathered near Lake Superior by Dr. Torrey, and on the north-west coast of North America by Douglas, who supposed the species to be the *Z. elegans* of Pursh. It is reported to inhabit the sandy banks of rivers and lakes.

For the opportunity of obtaining a figure of it, I am indebted to Messrs. Chandler and Sons of Vauxhall, who exhibited it at one of the meetings of the Horticultural

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* From *ζευγνύω* I join, and *αδην* a gland, in allusion to the double glands on the perianth.

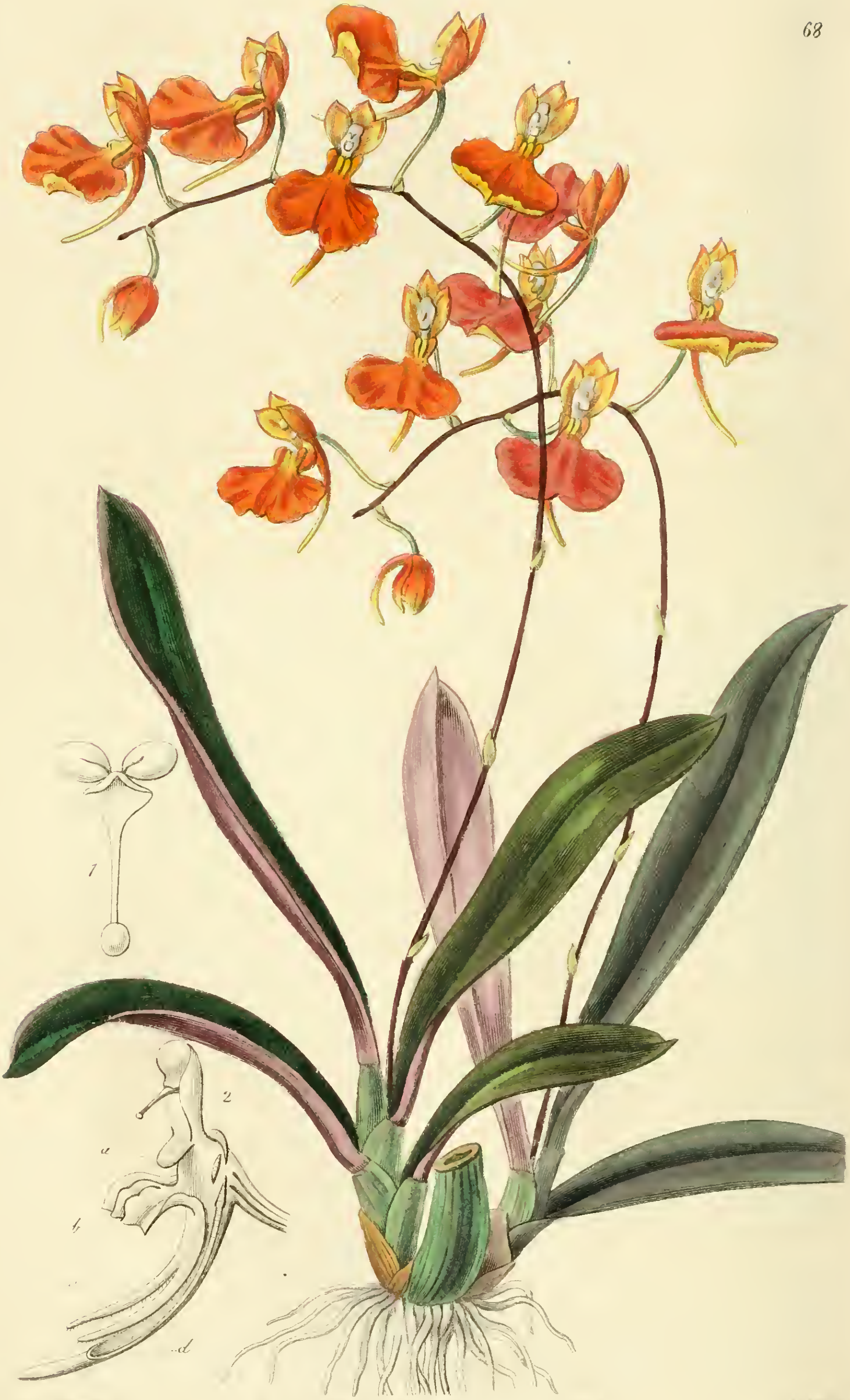
Society in Regent Street, where it was much admired. It is a very pretty herbaceous plant, although the flowers have no colour brighter than green; for it is covered over with a delicate bloom, and the green shining glands on the leaves of the perianth form a brilliant contrast with the dead surrounding colour. The plant from which the drawing was made had been grown in a pot, and had not gained its proper size; my wild specimens are from one and a half to two feet high.

It is a hardy perennial, flowering in July and August, growing equally well in either loam or peat, and easily increased by seeds or division of the roots. The seeds should be sown about March, in pans, and placed in a cold frame or pit; the seedlings will flower in the second or perhaps third year after sowing.

The species of this genus in England seldom produce their flowers, and those generally from imported roots, which seldom blossom well the second season. This is supposed to be owing to the attacks of small black flies, which, as in the genus Yucca, infest the plants when they are coming into flower. If these insects are not destroyed when they first make their appearance, they will soon cover the flower-stems and flowers with a kind of gum or honey, and the stems will become black with the numerous living and dead insects. If this kind of *honey-dew* is allowed to remain two or three days, it becomes hardened by the heat of the sun, particularly if the season be very dry, and forms a kind of varnish, which requires immersion in water before it again becomes soft and capable of being removed.

The best way to keep the plants clean, is to throw a few lumps of fresh lime into a tub of water, stirring it well up, and then leaving it two or three days to settle. When the insects make their appearance, which will be about the middle or end of June, the plants should be syringed all over with the clear lime water; this, if repeated three or four times, and not oftener than once every two or three days, will drive the enemy away.

Fig 1. represents one of the leaves of the perianth, with its double gland; fig. 2. the pistil; fig. 3. the same divided perpendicularly, so as to shew the position of the ovules.



del Pub by J. Ridgway 169 Piccadilly Decr 1 1838 J. Watts sc

* COMPARĒTTĬĂ coccĭnĕă.

Scarlet Comparettia.

GYNANDRIA *MONANDRIA.*

Nat. ord. Orchidaceæ, § Vandeæ.

COMPARETTIA. Pöppig et Endlicher. Perianthium ringens. *Sepalum* intermedium et *petala* nana, libera, subgaleata; lateralia in unum connata calcaratum labello suppositum. *Labellum* liberum, explanatum, obcordatum, unguiculatum, basi calcaribus duobus intra sepalorum calcar absconditis. *Columna* libera, erecta, mutica. *Pollinia* 2, posticè foveata, caudiculæ cuneatæ rostratæ adnata.——Herbæ *epiphytæ, pseudobulbosæ,* racemis *terminalibus.*

C. *coccinea;* foliis angustis coriaceis apice obliquis acutis, sepalo antico acuto calcare falcato duplò breviore, labello obcordato subrepando basi bilamellato calcaribus subulatis ciliatis, columnâ medio sub stigmate elevatâ.

This beautiful and very rare epiphyte flowered with Messrs. Loddiges in August last, and is said to be a native of Brazil; it however agrees so entirely with dried specimens collected near Xalapa, and now before me, that some mistake is to be suspected in its reputed country.

The scarlet of its lip is very brilliant, its flowers are arranged gracefully, and they have a most curious structure. Nothing is more common for Orchidaceæ than to produce spurs from their sepals, and labellum, but it is very unusual for the same organ to produce two spurs. Satyrium and Diplocentron were almost the only cases of this structure. Here, however, the labellum not only has two spurs, but they are hidden within the spur of the united pair of lateral sepals, so that they are not discovered till the latter is cut open. In this respect we find almost the same structure for Orchidaceæ as we have in Aconitum among Ranunculaceæ.

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* Named after Andreas Comparetti, Professor at Padua, who first understood the real nature of spiral vessels, and who wrote with great skill upon Vegetable Physiology. *Pöppig and Endlicher.*

Comparettia consists at present of this and two other species inhabiting trees in Peru. Of these *C. falcata* approaches the present subject in many respects. It, however, appears to differ in having broader leaves, larger flowers, no elevated plate at the base of the stigma, and the spurs of the lip smooth.

Fig 1. represents the pollen-masses, with their caudicula. Fig 2. is a view of the column and spurs, all the sepals and petals being cut off; *a.* is the elevated plate below the stigma; *b.* shews the lamellæ at the base of the lip; *c.* represents the labial spurs, a little pulled out of the sepaline spur *d.*

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MISCELLANEOUS NOTICES.

⁂ It is intended to publish monthly, under this head, some account of the most rare or curious plants that may from time to time be discovered or introduced, and of which there is no immediate possibility of giving plates. To this will be added such occasional notes upon plants already figured here or elsewhere, as will serve to make them better known, or to correct their history. It is expected that by this plan the present work will be rendered more useful and efficient than ever as a Register of information concerning Horticultural Botany. It must be evident to any one at all acquainted with the extent to which the introduction of new plants to this country is now taking place, that no periodical, the price of which will procure it a remunerating sale, can at all keep pace with discovery, if its contents are limited to anything like a hundred figures a year; although that number of plates may be amply sufficient to comprehend what new plants are strikingly beautiful, or extremely curious in their structure. Upon the arrangement now commenced, while the latter only will find a place among the plants actually figured, others will not be neglected, but on the contrary will be gradually brought before the reader by means of the descriptive letter-press to be given monthly, under the title which stands at the head of this page.

1. PASSĬFLŌRA onȳchĭna.

P. *onychina;* ebracteata, foliis trilobis cordatis glabris: laciniis oblongis obtusis subæqualibus obscurè serrulatis, petiolis 2-3-glandulosis, pedunculis foliorum longitudine, coronâ margine inflexâ serie intimâ radiorum erectâ conicâ intùs supra basin dentiferâ, extimâ duplici filiformi patentissimâ, intermediâ subtriplici brevissimâ capitatâ; ovario tomentoso.

A most beautiful greenhouse climber, which blossomed in the garden of Miss Traill of Hayes Place, Bromley, Kent, in the beginning of last November. Its flowers are of a deep Lapis Lazuli blue. It was raised by Messrs. Lowe and Co. of Clapton, from seeds received from Mr. Tweedie of Buenos Ayres, in the autumn of 1835. A figure of it will hereafter appear in this work.

2. SCHUBERTIA gravēŏlens.

S. *graveolens;* caule villoso, foliis cordatis obovatis obtusis molliter pubescentibus supra lucidis, umbellâ 6-7-florâ pilosâ corollæ tubo intus nudo lacinias limbi ovatas æquante.

From Mr. J. A. Henderson of the Nursery, Pine Apple Place, New Road, to whom it had been sent by Lady Wilton, having been raised in her garden from Brazilian seed.

It is a pretty stove twiner, with hairy stems, deep green downy leaves, and large cream-coloured flowers, with a strong but not disagreeable odour. It differs from Schubertia grandiflora in the leaves being very obtuse, and the tube of the corolla quite beardless inside.

3. EPIDENDRUM Pastōris.

La Llave Gen. & Sp. Orch. p. 98.

A Mexican epiphyte, with narrow pale green leaves, growing in pairs or threes upon pale, yellowish green, fusiform, erect pseudo-bulbs. The flowers are two or three in number, upon a smooth yellowish-green slender scape, hardly so long as the leaves. They are about the size of those of Epid. odoratissimum. The sepals and petals are very narrow, sharp-pointed, and striped with dull chocolate-purple, upon a dingy olive-coloured ground, and slightly bent back. The lip is white, united to the column for about half its length, folded up, so that its edges almost meet, with two narrow sharp-pointed purple-striped lobes, one on each side at the base, and three round wrinkled elevated ribs along its middle. It is fully described in La Llave and Lexarza's work on Mexican plants; but I do not find the scape ancipitous as those authors represent; it is a little compressed and that is all. They speak of the flowers having a powerful Vanilla fragrance, but of this I could not judge on account of the coldness of the weather when the specimen reached me. A correct figure will be found in Link and Otto's Abbildungen Neuer und Seltener Gewächse, plate 12.

Originally sent from Mexico, by Dr. Deppe, to the Royal Garden of Berlin, about the year 1828. The plant before me came from the garden of Richard Harrison, Esq. having been sent from Mexico by Mr. Bates to Mr. Tayleure, of Parkfield, near Liverpool. *April* 8, 1837.

4. STANHŌPĔA Lindlēyi. *Zuccar.*

A Mexican plant of this supposed species flowered in August last, in the collection of the Earl of Derby. It does not appear to be distinct from S. oculata, differing principally in the colour of its flowers, which are a dull pale brownish red on the sepals and petals, while the spots on those parts are comparatively inconspicuous. The bright yellow, so great an ornament of the lip of the original S. oculata, is wanting, and is replaced by the dull vinous (port-wine) stain of the other parts. The flowers are perhaps a little smaller than in S. oculata.

5. SACCOLĀBĬUM bĭfĭdum.

S. *bifidum*; racemo pendulo gracili multifloro, petalis basi obscurè hastulatis, labello recurvo hastato apice setaceo fisso: laciniis basi linearibus obtusis erectis.

A pretty species of this interesting genus of epiphytes, with the habit of a small Vanda, small oblong, flat, distichous leaves, and a slender pendulous raceme, about four inches long, of pale pink and yellow small flowers, in the form of their lip not unlike our wild Man-Orchis. It was received by Messrs. Loddiges from Manilla, where it had been collected by Mr. Cuming, and flowered in December.

The following is a technical description of the plant.

Flores parvi, Ribesios rubri magnitudine. *Perianthium* explanatum, ochraceum, *sepalis* linearibus obtusis; *petalis* minoribus, basi obsoletè hastulatis. *Labellum* albidum, subrecurvum, subtriangulare, apice setaceo-bifidum, basi hastatum: lobis linearibus, obtusis, apice purpureis, erectis, columnâ longioribus; calcare intus nudo, cylindraceo, ochraceo, apice compresso, pendulo, ovario duplò breviore. *Columna* nana, alis duabus linearibus obtusis porrectis stigma marginantibus. *Anthera* hemisphærica, mutica, pellucida, anticè truncata. *Pollinia* 2, posticè excavata, ab apice brevi glandulæ tenuis cuneatæ acuminatæ pendula.

6. PESOMĒRĬA tetrăgōna.

In a work consisting of indifferent plates, without explanatory letter-press, published upon the Orchidaceæ of the Isle of France, Madagascar, and Bourbon, by the late M. Aubert du Petit Thouars, there occurs a curious terrestrial plant, native of two of these islands, and called Epidendrum tetragonum. It is represented as growing about two feet high, with a four-cornered stem, and many oblong plaited acuminate leaves like those of a Phaius, to which moreover the flowers bear some resemblance both in size and form. In the very rare coloured copy of this work, in the possession of the Horticultural Society, the flowers are represented purple, like those of a Bletia; and upon the whole little doubt could exist of its being related to those two genera. Nevertheless it has not been again noticed by any original writer, but has been left among the obscure plants of the work in which it first appeared.

I was therefore not a little gratified at having an Isle of France plant brought me a few weeks since by Mr. Loddiges, which upon comparison appeared to be identical with the species in question, differing from it in nothing except the leaves being narrower, and the flowers of a pale yellowish brown, instead of a bright rose-colour; to the latter I attach no importance, as it is by no means improbable that the colour in Du Petit Thouars's book was given from an examination of dried specimens, or from memory. The plant of course was no Epidendrum, a genus unknown in the old world, as the Asiatic Dendrobium is in the new world; on the contrary it proved a very curious and distinct genus, differing from Bletia, Phaius, and their immediate allies, in having only four, instead of eight pollen masses, and moreover in the labellum being united to the column. The most curious circumstance about it, however, is a phenomenon which I have never seen in any other Orchidaceous plant. The sepals are spontaneously thrown off from the flower shortly after they have expanded, just as leaves are thrown off the stems of many of these plants when they receive a sudden check, and then the petals and labellum only remain to constitute the flower. It even appears from Du Petit

Thouars's figure that the same thing happens to the large convolute bracts. This unusual singularity has suggested the name Pesomeria (πιπτω, I fall off, and μερος a part of any thing); of which the following is a character and description.

PESOMERIA.

Nat. ord. ORCHIDACEÆ, § EPIDENDREÆ.

Sepala subæqualia, libera, spontè decidua. *Petala* conformia, basi columnæ adnata, persistentia. *Labellum* posticum, cum columna connatum, basi gibbosum, limbo indiviso convoluto. *Columna* clavata, semiteres, clinandrio dentato. *Pollinia* 4, cuneata.——Herba *terrestris;* caule *tetragono;* foliis *membranaceis plicatis;* racemo *laterali simplici,* bracteis *spontè secedentibus;* radicibus *crassis, simplicibus, fibrosis.*

1. P. tetragona.

Epidendrum tetragonum. *Thouars Orch. Afr. tt.* 33. 34.

Sepala carnosa, patula, oblonga, carinato-acuminata, luteo-viridia, intùs fusca, lineis intensioribus, omninò libera, æqualia, spontè decidua! ferè pollicem longa, 3 lineas lata. *Petala* aliquotiès breviora et angustiora, obovata, acutissima, intùs luteo-fusca, cum columna parallela ejusque basi utrinque adnata, haud decidua. *Labellum* posticum, convolutum, carnosum, cum columna semiconnatum, imâ basi gibbosum, cuniculo intus pubescente; laminâ obscurè luteâ, venis divergentibus fusco-purpureis, latiore quam longa, apice cuspidata et crispa, intùs sparsè villosâ, lineâ mediâ elevatâ latâ carnosâ sursùm sulcatâ. *Columna* clavata, semiteres, clinandrio dentato. *Stigma* lunatum, rostello plicato? *Anthera* obtuse conica, pilis albis erectis villosa, apice membranacea, bidentata, suberosa, obsoletè 8-locularis. *Pollinia* 4, cuneata, cereacea, materie pulverulentâ elasticâ cohærentia (ulteriùs indaganda).

7. EPIDĒNDRŪM Boothĭānūm.

E. *Boothianum;* pseudo-bulbis ovatis subdiphyllis, foliis ligulato-oblongis undulatis apice subobliquis, racemo terminali laxo sub-7-floro basi spathaceo foliis longiore, sepalis petalisque subæqualibus patulis ovali-linearibus acutis fusco-variegatis, labello semilibero rhomboideo acuto utrinque deflexo.

I have had an account of this pretty species of Epidendrum in my possession for nearly two years, without being able to satisfy myself about its being certainly new, so many are the species of this extensive genus. Upon a recent examination of the evidence it does appear distinct, and therefore it is named in compliment to Mr. W. B. Booth, one of the most intelligent gardeners in this country, to whom I am obliged for a drawing and the following description of it; Sir Charles Lemon has supplied me with some excellent specimens.

" This curious plant is a native of the Havannah, from whence it was brought by Capt. Sutton of Flushing, near Falmouth, in the spring of 1835, and added to Sir Charles Lemon's collection at Carclew, where it flowered in September.

" *Pseudo-bulbs* flat and compressed, growing in large masses, and laid over one another with great regularity. Each bulb is nearly round, and about an inch in diameter, tapering a little towards the crown, which is terminated sometimes by *one*, but more generally by *two*, thinnish, rigid, smooth, slightly recurved, yellowish green leaves, from four to six inches long, and an inch broad, reflexed and undulated at the margin with an obtuse, oblique, and emarginate point. *Scape* about six inches high, in our specimen seven-flowered, round, erect and pale green, issuing from a thin, oblong, two-edged, pointed kind of sheath, which rises from between the two leaves, and which in old decayed specimens is seen to proceed with the flower-stem from the crown of the pseudo-bulbs. *Flowers* produced on pedicels of about an inch in length, small and round at their junction with the scape, but otherwise three-angled and twisted. *Sepals* spreading, oblong acuminate, nearly uniform in size and colour, excepting the two inner ones which are somewhat narrower than the rest. All of them are of a dingy yellowish green, irregularly marked on the inside with dull reddish brown spots, and a little reflexed at the edges. *Labellum* pale yellow, nearly white, cordate acute, with the sides bent downwards and much recurved, about as long as the sepals and projecting horizontally from them with the column to which it is partly attached. *Column* about half the length of the labellum, rather paler in colour, becoming greenish and faintly spotted at the base, from which it thickens outwardly, and has on each side a deep longitudinal groove that gives it a triangular appearance. *Anthers* deep yellow, seated in a depression at the extremity of the column.

" On first comparing the plant with the figure of *Epidendrum variegatum* of the Botanical Magazine, I was almost inclined to consider them identical, but a closer examination has led me to alter my opinion, although it must be acknowledged that the two are very closely allied. The principal points of difference appear to be in the size and form of the pseudo-bulbs, which in *E. variegatum* are oblong, whereas in the present species they are round and flat. The leaves of the former are striated, sometimes in *threes*, and have a blotched or variegated appearance—of the latter they are quite plain, and do not appear to be ever more than *two*. The scape of the plant before me issues from a long thin sheath, whereas the one referred to has no sheath. The column and lip are also different from Dr. Hooker's figure, but in general character and appearance they nearly agree; except that E. variegatum is a much larger plant."

The following new Epidendra form a part of the many undescribed species now in our gardens; the account of them is from the pen of James Bateman, Esq. the author of one of the most splendid works on Natural History that has ever issued from the press; it is needless to say that I speak of the "Orchidaceæ of Mexico and Guatemala," of which one part has appeared, and a second is in an advanced state of readiness for publication.

8. EPIDENDRUM papillosum. *Bateman Mss.*

"E. *papillosum;* foliis strictis linearibus carinatis acutis in pseudobulbos pyriformes glaucescentes ternatim insidentibus, scapo erecto simplici multifloro foliis subæquali, floribus distantibus, sepalis ovato-lanceolatis acutis, petalis paulo angustioribus obtusis, labello semi-libero 3-partito, laciniis lateralibus obovatis, intermediâ 3-plo majore obscure quadrilobâ versus basin callosâ, columnâ bidentatâ, pedunculis papillosis."

Hab. in Guatemalâ. *Skinner, v. v. c.*

"Sepals and petals of a greenish brown, lip white, with three minute pink veins. Column orange-coloured at its apex. Next E. squalidum, from which its habit alone would at once distinguish it."

9. EPIDENDRUM tessellatum. *Bateman Mss.*

"E. *tessellatum;* pseudobulbis ovalibus compressis 2-raro 3-phyllis, foliis lineari-lanceolatis scapo simplici flexuoso multifloro paulo brevioribus, floribus subpatentibus, sepalis lanceolatis acutis mucronatis, petalisque minoribus subspathulatis; labelli liberi trilobi laciniis lateralibus rotundatis, intermediâ majore oblongâ cucullatâ callis tribus cristigeris longitudinalibus munita."

Hab. in Guatemalâ. *Skinner.*

"Sepals and petals greenish on the outside, but brown on the inside, and marked with regular streaks of a darker shade which produces a tessellated appearance. Lip beautifully streaked with purple. Column dark coloured at base, tipped with orange. Near E. pastoris."

10. EPIDENDRUM rhizophorum. *Bateman Mss.*

" E. *rhizophorum;* caulibus elongatis foliosis radices crassos utrinque promens (Renantheræ more), foliis alternis lineari-oblongis racemo terminali paucifloro paulo brevioribus ; sepalis petalisque subæqualibus lanceolatis, labello tripartito laciniis lateralibus laceratis acinaciformibus, intermediâ unguiculatâ apice dilatatâ alte emarginatâ."

Habitat in Guatemalâ. *Skinner v. s. s.* Flores expansione 1½ uncias lati, exsiccatione aurantiaci.

" A most remarkable species, near E. cinnabarinum."

11. EPIDENDRUM aurantiacum. *Bateman Mss.*

" E. *aurantiacum;* foliis oblongis planiusulis coriaceis caule clavato diphyllo duplo brevioribus, racemo brevi subcernuo densifloro, sepalis petalisque lanceolatis acutis subæqualibus, labello libero oblongo cucullato basi columnam involvente."

Habitat in Oaxacâ, *Karwinski;* in Guatemalâ, *Skinner.*

" Sepals and petals of a uniform rich orange colour; lip the same, but with a few delicate streaks of the richest crimson. This is a most remarkable species, and I was for some time doubtful whether it were an Encyclia, Cattleya, or Epidendrum. On the whole, however, it seems to approach nearest to the latter genus. Flowering specimens and a beautiful drawing were obligingly communicated to me by Sir Chas. Lemon, and it has also flowered at Knypersley. Some of the wild specimens have borne as many as thirteen flowers in a spike. In habit it approaches E. clavatum."

12. EPIDENDRUM tibicinis. *Bateman Mss.*

" E. *tibicinis ;* caulibus cylindraceis 3-4-phyllis foliis ovatis crassissimis triplo longioribus, scapo altissimo giganteo in racemum multiflorum desinente, floribus ——."

Habitat in Honduras. *Skinner.*

" By far the most magnificent species of the genus. Flowers of the size and colour of Cattleya labiata, but I have not the means of giving their specific character. Scape *three yards* long. The hollow cylindrical stems are used as rumpets by the native children : hence the name."

13. VICTŌRĬA rēgĭă.

Great interest having been excited by the stories told in the newspapers of this extraordinary plant, the following account of it has been taken from a memoir upon the subject, of which twenty-five copies only have been privately circulated. Some Botanical explanations concerning the genus, not introduced into the original memoir, are here given from such materials as I possess.

" An undoubted addition to a tribe of plants, at once so beautiful and so circumscribed as that of the Nymphs, or Water-lilies, would be an event of interest even if it only related to a distinctly marked species of some well known genus. But when the subject of the discovery is not only a new genus, but a plant of the most extraordinary beauty,—fragrant,—and of dimensions previously unheard of in the whole vegetable kingdom, except in the colossal family of Palms, an interest must then attach to it, which can rarely be possessed by a novelty in natural history.

" Such a plant is the subject of the following notice; a Water-lily, exhibiting a new type of structure, of the most noble aspect, of the richest colours, and so gigantic that its leaves measure above eighteen feet, and its flower nearly four feet, in circumference. It was met with in British Guayana, in lat. 4° 30′ N., long. 58° W. nearly, by Mr. Robert H. Schomburgk, a German gentleman, travelling on account of the Royal Geographical Society, assisted by Her Majesty's Government, for the purpose of examining the natural productions of that part of the British dominions. In an account of the plant, transmitted to the Geographical Society, Mr. Schomburgk speaks thus of his discovery.

' It was on the first of January this year, while contending with the difficulties nature imposed in different forms to our progress up the river Berbice (in British Guiana), that we arrived at a point where the river expanded, and formed a currentless basin; some object on the southern extremity of this basin attracted my attention; it was impossible to form any idea what it could be, and animating the crew to increase the rate of their paddling, we were shortly afterwards opposite the object which had raised my curiosity—a vegetable wonder! All calamities were forgotten; I felt as a botanist, and felt myself rewarded: a gigantic leaf from five to six feet in diameter, salver-shaped, with a broad rim; of a light green above, and a vivid crimson below, resting upon the water. Quite in character with the wonderful leaf was the luxuriant flower, consisting of many hundred petals, passing in alternate tints from pure white to rose and pink. The smooth water was covered with the blossoms, and as I rowed from one to the other I always observed something new to admire. The leaf on its upper surface is of a bright green; in form almost orbicular, except that on one side it is slightly bent in; its diameter measured from five to six feet; around the whole margin extended a rim, from three to five inches high, on the inside light green, like the surface of the leaf, on the outside like the leaf's lower surface, of a bright crimson. The ribs are very prominent, almost an inch high, radiating from a common centre; there are eight principal ones, with a good many others, branching off from them; these are crossed again by a membrane or bands at right angles, which gives the whole the appearance of a spider's web, and are beset with prickles; the veins contain air-cells like the petiole and flower stem. The divisions of the ribs and bands are visible on the upper surface of the leaf, by which it appears areolated. The young leaf is convolute and expands but slowly. The prickly stem ascends with the young leaf till it has reached the surface; by the time it is developed, its own weight depresses the stem, and it floats on the water. The stalk of the flower is an inch thick near the calyx, and is studded with sharp elastic prickles, about three-quarters of an inch in length. The calyx is four-leaved, each sepal upwards of seven inches in length, and three inches in breadth; at the base they are thick, white inside, reddish brown and prickly outside; the diameter of the calyx is from twelve to thirteen inches; on it rests the magnificent corolla, which, when fully developed, completely covers the calyx, with its hundred petals. When it first opens, it is white, with pink in the middle, which spreads over the whole flower the more it advances in age, and it is generally found the next day altogether of a pink colour; as if to enhance its beauty it is sweet scented. Like others of its tribe, the petals and stamens pass gradually into each other, and many petaloid leaves may be observed which have vestiges of an anther. The petals next to the leaves of the calyx are fleshy, and possess air-cells, which certainly must contribute to the buoyancy of the flower. The seeds of the many-celled fruit are numerous, and imbedded in a spongy substance. We met the plants frequently afterwards, and the higher we advanced, the more gigantic they became: we measured a leaf which was six feet five inches in diameter, its rim five inches and a half high, and the flower across fifteen inches. The flower is much injured by a beetle (Trichius sp. ?) which destroys completely the inner part of the disk; we have counted sometimes from twenty to thirty in one flower.'

"Some drawings were sent home by Mr. Schomburgk in illustration of the previous account. He considered the plant a species of the genus Nymphæa, and was desirous that it should be distinguished by the name of the Queen, a wish with which Her Majesty has been graciously pleased to comply. But it proves, upon an examination of the drawings and papers, which the Royal Geographical Society has placed in my hands for publication, that the plant is not a Nymphæa, as Mr. Schomburgk supposed, but a new and well marked genus; for this reason, it has appeared to me that the object of its discoverer will be best attained by suppressing the name of Nymphæa Victoria, by which he had proposed to distinguish the plant, and by embodying Her Majesty's name in the usual way in that of the genus. I have therefore proposed to name it Victoria Regia.

"This noble plant corresponds with the genus Euryale in the spiny character of the leaves and stalks, and to a certain extent in the great developement of the former organs; but it is in fact most nearly related to Nymphæa itself."

At the time when this was written I knew nothing of the plant beyond what could be learned from Mr. Schomburgk's description and figures; these however contained abundant evidence upon which to establish the genus. I was therefore a little surprised to find, soon after the account above quoted had been printed, that either this very plant, or one nearly allied to it, had been called *Euryale Amazonica* by Professor Pöppig. In the second volume of the travels of this distinguished naturalist, mention is made of a Nymphæaceous plant of extraordinary dimensions, rivalling the East Indian Rafflesia in size, but far superior in richness of colour, inhabiting the Igarapé River, one of the branches of the

Amazons. The leaves are described as covered with prickles on the under side, the flowers snow white, purple in the middle, and from ten to eleven English inches in diameter. It flowers in December and January, and bears in Ega the name of Mururú.

It is impossible not to recognize a plant extremely like Victoria in this sketch; and I cannot doubt that the Mururú is either the very same, or a nearly allied species. That Professor Pöppig was wrong in referring this plant to Euryale must have been evident to any one acquainted with Roxburgh's detailed description of that genus, and has been rendered still more certain in consequence of the Royal Geographical Society having received from Mr. Schomburgk some flowers sent over in salt and water. I am indebted to the liberality of the Society for these specimens which, although in a very decayed state, in consequence of the manner in which they were packed, are botanically examinable; and they show that Victoria is not only quite distinct from Euryale, but highly curious in structure. They moreover confirm Mr. Schomburgk's account of the size of the flowers, for one of the expanded calyxes measured fourteen inches in diameter, and an additional inch for the overlapping of the petals is little enough to allow.

With regard to the genus.—Euryale is an East Indian water plant, with very large floating leaves, sometimes as much as four feet in diameter, bright purple underneath, and there reticulated with numerous very large prominent veins. It is moreover covered with sharp prickles on the underside of the leaves, the leaf-stalks, flower-stalks, and calyx. In these particulars it agrees with Victoria—and in little else.

Victoria has the inner petals rigid, and curved inwards over the stamens, into which they gradually pass; in Euryale there is no transition of this kind.

In Victoria there is a double row of hornlike stout stamens curving over the stigmas, and adhering firmly to their back; Euryale has no such structure.

Victoria has 36 cells to the ovary, and about 28 ovules in each of its cells; Euryale has only from six to eight cells, with 6-10 ovules in each.

And finally, to say nothing of minor distinctions, which will be sufficiently collected from the following description, the ripe fruit of Victoria lies at the bottom of a regularly truncated cup, which stands high above the water, while the blossom of Euryale sinks into the water after flowering, and the fruit when ripe is invested with the irregular decayed remains of the calyx and corolla.

In drawing up the following account, I have still been obliged to take my description of the leaves from Mr. Schomburgk's papers, that of the fructification is derived from the specimens already referred to.

VICTORIA.

Calyx campanulatus limbo 4-partito deciduo. Petala indefinita, fauce calycis inserta, exteriora patentissima, interiora incurva multò minora. Stamina plurima petaloidea, fauce calycis inserta; exteriora fertilia libera, interiora sterilia cornuta stigmatibus a tergo adnata. Ovarium inferum multiloculare; loculis polyspermis: ovulis parietalibus; stylis in campanulam sulcatam tubum calycis vestientem connatis; stigmatibus maximis reniformibus, carnosis. Fructus campanulatus, truncatus, carnosus, intra basin capsulam gerens medio longè rostratam, polyspermam.

Species unica. Victoria Regia, *Lindl. memoir, &c. cum ic.*
Nymphæa Victoria, *Schomburgk in litteris.*
? Euryale amazonica, *Pöppig reise in Chile, &c. vol.* 2. *p.* 432.

Habitat in fluvio Berbice Guianæ Britannicæ, ubi inventa est cel. R. H. Schomburgk.

Planta natans Nymphææ aspectu. Folia plantarum omnium maxima, Palmis exceptis, sæpe diametro sexpedali, orbicularia, hinc emarginata, supra atroviridia, plana, margine elevato, subtus sanguinea, costis maximis a centro radiantibus inter se venis parallelis transversis colligatis, cum petiolo spinosis. Flores speciosissimi, fragrantes, quindecim uncias lati, pedunculis spinosis super aquam elevati. Calyx sanguineus, coriaceus, campanulatus; tubo et pedunculo aculeis rigidis horridis, limbo 4-partito, deciduo, laciniis dorso spinulosis, ovato-triangularibus, carnosis, obtusis, 6 pollices longis. Petala indefinita, oblonga, coriacea, fauce calycis inserta, exteriora patentissima; interiora minora, incurva, acuminata, mucronata, sensim in stamina abeuntia; petala exteriora candida, post horas quasdam rubescentia, interiora sanguinea. Stamina sanguinea, lineari-triangularia, carnosa, incurva; fertilia libera seriebus sex fauce calycis intra petala inserta: antheræ loculis 2, linearibus, parallelis, immersis; sterilia cornuta, carnosa, incurva, biseriata, basi subtus sulcata, dorso stigmatorum adnata. Ovarium calycis tubo omninò adnatum; stylis in campanulam tubum vestientem circa axin centralem elevatum conicum connatis; loculis tot quot stigmata polyspermis; ovulis plurimis reti dissepimentorum spongiosorum succulentorum affixis cuique loculo circiter 28; stigmatibus 36, carnosis, compressis, reniformibus, verticalibus a tergo staminibus sterilibus adnatis. Fructus cyathiformis, truncatus, carnosus, viridis, aculeatus, margine plano truncato, intra basin capsulam gerens, medio longè rostratam polyspermam.

Since the foregoing remarks were put in type, I learn from the last number of the Comptes rendus, that a copy of the memoir above alluded to, which I had given to Baron Benjamin Delessert, had by that gentleman been communicated to the Academy of Sciences of Paris, upon which occasion an interesting fact was added, which I am happy to have this opportunity of repeating. It appears that as much as ten years ago, a plant either identical with, or very similar to, the Victoria had been discovered by M. D'Orbigny in a river in the province of Corrientes, whence dried specimens had been sent to the Museum of Natural History of Paris; and that M. Bonpland had also remitted seeds to M. de Mirbel, but they had not germinated. M. Adolphe Brongniart stated that the plant is well known to the natives of the country where it grows, by whom the seeds, as large as peas, are used as food under the name of Water maize. In the Comptes rendus it is remarked, that the distinctions between Euryale and Victoria, "ne portent que sur de legers caractères," an opinion in which I need hardly say that I do not at all concur. On the contrary, I think all the preceding statements prove that I was originally right in asserting that, notwithstanding a *primâ facie* resemblance to Euryale, Victoria is in fact more nearly allied to Nymphæa.

14. LISSŎCHĪLŬS parvĭflōrus.

Gen. & Sp. Orch. p. 191.

This rare plant flowered in December, in the collection of Messrs. Loddiges, who obtained it from Algoa Bay. The leaves were plaited like those of a Bletia, and varied in breadth from half an inch to 1½ inch. The sepals are a dull greenish purple; the petals were much broader, and of a rich brownish red, rather strongly veined. The labellum was yellow, with the lateral lobes light purple.

Not to be compared in point of beauty with L. speciosus and streptopetalus.

15. EPIDĒNDRŪM ochrācĕum.

E *ochraceum;* pseudobulbis obverse pyriformibus cæspitosis sursum attenuatis 1-3-phyllis, foliis linearibus acutis recurvis scapo æqualibus, spicâ terminali laxiflorâ, bracteis rigidis acutis squamiformibus, sepalis petalisque subæqualibus lineari-oblongis obtusis, labello postico sublibero trilobo medio calloso: laciniis lateralibus inflexis truncato-rotundatis denticulatis intermediâ brevi emarginatâ, callo plano apice tridentato, columnâ apice tricorni denticulatâ, ovario triptero.

I have received this little plant from several collections, and have long since called it Encyclia ochracea; but I am now convinced that the genus Encyclia must be reduced to Epidendrum. Mr. Booth first sent it from Sir Charles Lemon's garden at Carclew, it was afterwards drawn for this work in Messrs. Loddiges' stove in July 1837, and the figure will hereafter appear; it is, therefore, only necessary to state that it is a small species, hardly exceeding six inches in height, forming tufts of slender inverted pear-shaped pseudo-bulbs, and with yellowish brown flowers. It was first found in Guatemala by Mr. Skinner, and Messrs. Loddiges received it from Oaxaca. It is near E. tessellatum.

16. EPIDĒNDRŪM Schombūrgkĭi.

E. *Schomburgkii;* foliis distichis oblongis obtusis margine sanguineo punctatis, caule simplici apice aphyllo, sepalis petalisque lineari-lanceolatis acutis æqualibus patentissimis, columnâ clavatâ elongatâ, labelli trilobi basi bicallosi lineâ medianâ elevatâ, lobis lateralibus latis rotundatis laceris: intermedio cuneato apice triangulari crispo medio et utrinque acuminato.

A noble species in the way of E. elongatum, with bright scarlet flowers, according to Mr. Schomburgk, its discoverer, from one of whose letters the following is an extract:—

"In both cases that I had opportunity of meeting with this beautiful plant, it grew in company of Coryanthes, on a tree on the banks of the river, exposed to full light; the bright colour of its flowers, the three-lobed finely fringed lip, the long period it remains in flower, the form of its leaves, spotted on the margin, will make it, should I have been correct in my supposing it to be new, a great favourite with the admirers of Orchidaceæ."

The characters of this species have been drawn up from a coloured figure and some dried flowers, sent home by Mr. Schomburgk. It seems to grow about two feet high; and will be readily known by its deep green leaves, richly dotted with crimson at the edge. The diameter of the head of flowers appears from the drawing to be about five inches.

17. EPIDĒNDRŪM fucātūm.

E. *fucatum*; pseudobulbis subrotundo-ovatis cæspitosis monophyllis, foliis ligulatis coriaceis obtusis scapo brevioribus, paniculâ nutante multiflorâ, bracteis ovatis acutis squamiformibus, sepalis petalisque lineari-oblongis tessellatis æqualibus obtusis conniventibus, labelli liberi tripartiti lobis lateralibus erectis linearibus apice rotundatis intermedio acuto ovali multò brevioribus, callo sulcato plano elevato basi lobi intermedii.

" This curious plant was imported from Havannah in the spring of 1835, by Captain Sutton, and added to Sir Charles Lemon's collection at Carclew, where it flowered for the first time in July 1837, and continued in perfection for several weeks.

" *Pseudo-bulbs*, one-leaved, nearly round, about the size of a large marble, enveloped at first in a thin brown covering, which afterwards dies off. They are then of a deep green, rather wrinkled, with a tinge of reddish brown on the exposed side. *Leaves*, upright, thick and rigid, from four to eight inches long, and about three-fourths of an inch broad; oblong lanceolate; a little keeled at the base and twisted, but otherwise flat with a roundish obtuse point. *Scape*, solitary, rising from the crown of the bulb to the height of from twelve to fifteen inches, round, wiry, and slender, with several joints, each of which is surrounded by a small, thin, brown, acuminate, persistent bractea. The *flowers* are from twenty to thirty or more on each scape, arranged in a curved, loose, branched panicle, each branch supporting from three to seven flowers. *Pedicels*, nearly an inch long, small and round, thickening outwardly, where they become slightly angular, and have a brownish spot in the middle. *Sepals*, spreading, oblong, lanceolate acute; about half an inch long, and one-eighth of an inch broad, thick and fleshy, a little recurved at the margin, and incurved at the point. *Petals*, rather smaller and thinner than the sepals, but very similar in form and colour : the latter is a dingy yellowish green on both sides, with four or five brownish, longitudinal veins, so much branched at the extremity, as to give both sepals and petals a reticulated appearance. *Labellum*, deeply three-lobed; the middle one, which is nearly the length of the sepals, is flat, ovate-acuminate, and incurved at the point; of a pale yellowish colour, almost white, streaked with pink in the centre, and having two oblong fleshy processes at its base. The two lateral lobes are only half the length of the middle one, roundish oblong, converging at the point, so as to embrace and conceal the column, and marked inwardly with four or five deep purple lines or veins. *Column*, slightly curved, three-sided, rounded above, hollowed beneath, and thin at the edges. *Anthers*, reniform, pinkish at the margin, two-celled, with two pollen masses in each.

"The plant requires the same treatment as other Epidendra, and flourishes either in vegetable earth, or attached to a piece of wood."

A very pretty species of this extensive genus, for the preceding account of which I am indebted to Mr. Booth. It is nearly related to E. odoratissimum, from which it is known by its nodding panicle of tessellated flowers having a pinkish lip, and by the solitary leaves. Moreover the bract of E. odoratissimum are comparatively large and sheathing; here they are minute and do not half surround the rachis by their base.

18. EPIDḖNDRŪM lắcĕrŭm.

E. *lacerum;* foliis distichis lineari-oblongis obtusis, caule simplici apice aphyllo squamato, sepalis petalisque patentibus lineari-lanceolatis æqualibus acutis, labelli trilobi lobis æqualibus laceris pectinatis intermedio apice mucronato integro : lamellis duabus membranaceis sub apice conniventibus duabusque callosis parallelis e basi ortis.

Communicated by Mr. Booth, with the following note, in January, 1837 :—

"This is the third species of Epidendrum introduced from Havannah, in the spring of 1835, by Captain Sutton, and added to Sir Charles Lemon's collection at Carclew, where it flowered during November and December 1836. Although at first sight it may be mistaken for *E. elongatum*, to which it is unquestionably very nearly allied, yet, when compared with that species, it will be found to be of a more lax and slender habit. The leaves are much narrower, and thicker. The stem is erect, not zigzag, as in E. elongatum, and the labellum is larger and deeper fringed, and the two converging membranous lamellæ are quite peculiar.

"*Stem* from two to three feet high, round and nearly erect; destitute of leaves at the top, which is covered with long, thin, brownish scales. *Leaves* distichous, sheathing, oblong-lanceolate, obtuse, thick and fleshy, about 3½ inches long, and half an inch broad, of a rich shining green. *Flowers* in a terminal panicle, pale pink. *Pedicels* an inch long, somewhat angular and twisted, brownish green. *Sepals* spreading, linear-lanceolate acute, rather larger than the *petals*, but all nearly of equal length. *Labellum* three-lobed, the two lateral lobes roundish and deeply fringed at the edge, as well as the intermediate one, which is emarginate, with a small point. *Column* about two-thirds the length of the sepals, small, roundish-oblong, and concave, widening towards the labellum, to which it is attached.

19. BABĬĀNĂ rīngĕns.

B. *ringens;* bulbo purpurascente; caule purpurascente, tomentoso, foliis breviore; foliis acutis plicatis, glabris, obscurè viridibus, rigidis, pedalibus; calyce bifolio, viridi, basi purpurascente, folio externo acuto, interno breviore bifido; tubo 2¼ unciali, sursum curvato, viridi luteo, infra cylindrico, superne ampliato, compresso; laciniâ supremâ coccineâ suberectâ, apice recurvato, basi undulatâ genitalia complexâ; cæteris devexis, infra luteis, superne coccineis, basi semunciam rutelliformiter coalescente; duâbus superioribus brevioribus, angustis, acuminatis, reflexis; imâ angustâ, acutâ, porrectâ; duâbus intermediis latioribus, undulatis; stylo filamentis limbum æquantibus longiore; genitalibus arcuatim suberectis, rubris, infra lutescentibus; stigmate purpureo, trifido; antheris suberectis, polline obscurè purpureo; capsulâ triloculari, ovatâ, rugosâ, gibbosâ, loculis hexaspermis; seminibus erectis, testâ exteriore nigrâ, nitente, rugosâ, angulatè rotundatâ, subalatâ, basi trigonè columnari; interiore rotundâ, glaberrimâ, colore badio.—*Herbert Mss.*

I am indebted to the Hon. and Rev. William Herbert for the account of this remarkable plant.

"We apprehend that this singular plant is the one alluded to incidentally by Mr. Ker, under the name Babiana ringens in the Botanical Magazine. Its corolla is certainly much more similar to that of Antholyza than of Babiana, and we have great doubts whether it should not form a genus by itself: but it accords so exactly with Babiana, in bulb, foliage, and habit, and as it appears to us in the capsule and seed also, that notwithstanding its extraordinary corolla we cannot take upon ourselves to separate it. We regret not having had an opportunity of trying whether it would intermix with other species of Babiana, which we are inclined to think it will be found capable of doing. Its seed completely separates it from Antholyza. It is a native of the Cape of Good Hope, and flowered at Spofforth in July, and ripened its seeds standing out of doors, in a pot of sandy loam, having been wintered in the greenhouse. We had kept it many years in peat, under which treatment it did not flower. It would doubtless succeed with care in the open border."

The deep rich scarlet blossoms are highly ornamental.

20. HUNTLEYA meleagris. *Bot. Reg. fol.* 1991.

This rare epiphyte, described very briefly in the Botanical Register, under fol. 1991, has blossomed with Messrs. Rollissons. The flower was three inches across; the colour pale yellowish white, with a brownish purple tint towards the upper part of the sepals and petals. The lip was of the same pale colour as the base of the petals. Across the bend of the lip is stretched a broad yellow-fringed crest, which is very remarkable. The colours were all very much less brilliant than if the plant had flowered at a brighter season of the year.

21. HṒITZĬĂ mēxĭcā́nă. *Lam. encycl.* 3. *p.* 134.

This charming plant, which has been so long a desideratum, has at length blossomed in the garden of Thomas Harris, Esq. of Kingsbury. The blossoms were sent me on the 1st of February, when,, owing to the season, they had gained but little colour: it will be found that the summer flowers are of the most brilliant red; and that the plant itself is one of the most beautiful of the Mexican Flora.

22. IPŎMŒ̄́Ă Schīedĕā́nă. *Hamilton* not *Zuccarini.*

I. *Schiedeana;* caule inferne sublignoso, sursum crassiore, ramoso; foliis petiolo torto brevioribus, subprofunde cordatis subrotundis, brevè et acute acuminatis, subnovemnerviis, reticulato-venosis; ramis omnibus floriferis, axillaribus, racemiferis: racemis lateralibus terminalibusque multifloris (6-10 floris); floribus amplissimis speciosissimis, limbo læté serotino-cœruleo: staminibus alternis brevioribus, omnibus inclusis: stylo gracili, subexserto; stigmatibus binis globosis.—*Wm. Hamilton Mss.*

"For this splendid climber we are indebted to that distinguished botanist Dr. William Schiede, after whom we have named it, and by whom a few of its seeds were sent, with many others, last summer to Dr. Hamilton of Plymouth, who gave some to Mr. Pontey, by whom they were sown towards the end of last June, producing the present plant. Being placed in the stove towards the end of September, and trained along the rafter, it extended itself to a length of about twelve or fourteen feet, pushing out flowering branches from the axil of almost every leaf, and displaying its first blossom on the 25th of October, in little more than four months from the first arrival of the seed, on the 14th of the preceding June. The flower which first opened exceeded in size and splendour any which have succeeded it, its diameter having exceeded four inches, with the colour of a brighter and more cœrulean blue. The number of flower-buds could not have been much less than 500, of which as many as fourteen have been expanded at once, making a most splendid appearance; but from the lateness of the season, and the consequent diminution of the stimulus of light, great numbers of buds dropped off without expanding. From the disposition of the roots to throw up suckers, as well as from the ligneous character of the interior part of the stem, it appears likely to prove perennial, at least in the stove; but as it is cultivated in the gardens of the inhabitants of Mexico, there appears little reason to doubt that it will admit before long of being cultivated as a hardy annual in the open ground, and if so, will form a striking ornament of our suburban and other gardens. Seeds were distributed by Dr. Hamilton to Messrs. Loddiges of Hackney, the Botanical Garden at Liverpool, Professor Desvaux the Curator of the Garden at Angers, and others, but we have not heard of its flowering any where hitherto but in Mr. Pontey's stove.

"Dr. Schiede gives no intimation of the native locality of this beautiful plant, but merely states that it is cultivated in the Mexican gardens."

The foregoing account of this plant was sent me in December, 1836, by Dr. Wm. Hamilton of Plymouth, along with a good drawing made by Mr. Nairn, the foreman in Mr. Pontey's nursery. It appeared to me to be the same as I. rubro-cœrulea, but, upon stating this to Dr. Hamilton, I am assured by that gentleman that both species are cultivated by Mr. Pontey, and that they are quite distinct. It is undoubtedly a *most beautiful* plant, and I therefore publish Dr. Hamilton's account of it, in order that attention may be called to its existence. The flowers are of a deep lapis lazuli blue.

If it should prove a distinct species, there seems no objection to the name of I. Schiedeana, as the plant so named by Professor Zuccarini had been previously called I. Purga by Wenderoth; a name which is preserved by Schlechtendahl, and which is upon the whole the most convenient to adopt, on account of that plant producing one of the kinds of Jalap of commerce.

23. PHILADĔ́LPHŬS Gordōnĭā́nŭs.

P. *Gordonianus;* foliis ovatis altè serratis pilosis, subtus ramisque villosiusculis, floribus congestis 7-9, fructibus ferè superis.

This is a very distinct species, and one of great beauty, sent from North-West America by Mr. Douglas, marked as a plant forming underwood along the banks of the Columbia River. It grows from eight to ten feet high, producing numerous small slender side shoots, which give it rather a pendulous appearance. It differs from all the others in its small deeply serrated leaves, flowers growing in close clusters, broad reflexed calyx, and nearly superior fruit. It is the latest species that flowers. I have named it after Mr. Gordon who first called my attention to its peculiarities, and who has carefully studied this ornamental genus.

24. BOLBŌPHY̆́LLŪM setĭ́gĕrūm.

B. *setigerum;* pseudobulbis ovatis monophyllis, foliis ovalibus acutis scapo erecto radicali spicâque pendulâ multò brevioribus, rachi filiformi, sepalis ovatis acutis erectis, petalis setaceis patentissimis basi extus tuberculatis, labello oblongo recurvo medio incrassato et elevato apice tridentato, columnâ bicorni, antherâ pedicellatâ.

A very curious little epiphyte, obtained by Messrs. Loddiges from Demerara; the flowers are small and dull purple, upon a light green ground. One very remarkable circumstance in its structure is the presence of a minute tubercle at the base of the petals on the outside, which in another species, B. *bracteolatum*, from the same country, is in the form of a distinct scale.

25. PLAGĬĀ́NTHŬS Lampḗnĭĭ. *Booth Mss.*

P. *Lampenii ;* foliis ovato-lanceolatis basi trinerviis serratis subtus farinoso-tomentosis, racemis laxis nutantibus petiolo multò longioribus, petalis ciliatis calyce longioribus, stylis tubo staminum multò brevioribus.

"This plant was raised about five years ago, by the Rev. Robert Lampen, Vicar of Probus, near Truro, from some seeds which had been sent him from Van Diemen's Land, of which it is believed to be a native. It seems to be sufficiently hardy to endure the common winters of Cornwall, and in the course of a few years I have no doubt of its being found well suited for sheltered situations, and an interesting addition to our collection of hardy evergreens. Specimens of it were first communicated to me by Mr. Lampen in November, 1836, and again in 1837, from one of which I have prepared the accompanying figure and description.

"A handsome, upright, branching, leafy shrub, attaining the height of six or eight feet, and flowering in great profusion from November till February. The *branches* are small and round, and, together with the leaves, are more or less densely covered with short, hoary, stellate pubescence, which gives them a roughish brown appearance. *Leaves* on short foot-stalks, alternate, oblong-lanceolate, acute, varying from four to five inches in length, and from half an inch to an inch in breadth, attenuated towards the base, sharply and regularly serrated ; of a deep green above, hoary beneath, and strongly reticulated, with a prominent midrib, and a single vein on either side of it, extending from the base to about a third the length of the leaf. *Flowers* produced on short, axillary, leafy panicles ; small and numerous, of a pale yellowish tinge almost white. *Pedicels* short, round, and slender. *Calyx* 5-toothed, acute, pinkish inside at the bottom. *Petals* five, roundish oblong, much longer than the calyx, narrowing downwards, and overlapping one another so as to make the flower somewhat funnel-shaped, with the outward edge a little recurved. *Filaments* united about the length of the petals, divided into several parcels at the extremity, with large, yellow, roundish, one-celled anthers. *Styles* two small stumps, scarcely so long as the calyx."—*W. B. Booth.*

I am obliged to Mr. Booth for the above memorandum concerning the plant, which is known about London under the erroneous name of *Sida pulchella*. It bore the winters well up to the present severe season; but is probably now killed every where.

That it is different from Sir W. Hooker's *Plagianthus sidoides*, Bot. Mag. t. 3396, is certain; for the styles are extremely short instead of projecting beyond the stamens; and the petals are much longer than the calyx. I am however by no means certain that it is a distinct species; on the contrary it is quite possible that it may be the male of a diœcious species, P. *sidoides* being the female.

With regard to the genus, I have followed Sir W. Hooker in referring it to Plagianthus, not liking to disturb a received name without being able to improve it. But I am quite persuaded that it really belongs to some very different genus; a point which can be only satisfactorily settled when the fruit shall be known.

26. MAXILLĀ́RĬĂ variā́bĭlĕs; *var.* unipūnctā́tă.

M. *var. unipunctata;* caule ascendente squamato, pseudobulbis ovalibus compressis monophyllis, foliis ligulatis obtusis apice obliquè emarginatis, floribus solitariis pedicellis pseudobulborum longitudine, sepalis lineari-oblongis acutis subæqualibus lateralibus basi parùm productis, petalis conformibus paulò brevioribus, labello oblongo retuso obsolete trilobo apice carnoso: glandulâ succulentâ sanguineâ obtusâ in medio.

"A plant of this singular little epiphyte was, with others, received from the Horticultural Society in March, 1837, by Sir Charles Lemon, Bart. in whose collection it flowered in January, 1838.

"*Stem* creeping, covered with numerous sheathing, acute, deep brown scales. *Pseudo-bulbs* ovate-oblong, thick and fleshy, from one to two inches in length, and about half an inch in breadth, one-leaved. *Leaves* nearly erect, thin and flat, ligulate-lanceolate, dark shining green, from four to five inches long, and three-eighths or half an inch broad, a little compressed and narrowed at the base, with an oblique, obtuse, emarginate point. *Scape* one-flowered, very short, almost hid by the sheathing scales. *Peduncle* round, slightly striated, nearly an inch long, pale green. *Flowers* deep yellow, shaded with a faint greenish tinge. *Sepals* oblong-lanceolate, acute, all about one size, and not spreading very wide. *Petals* scarcely so long as the sepals, and rather narrower, reflexed at the point. *Labellum* 3-lobed, the middle one about the length of the petals, but a good deal broader, with a roundish spatulate recurved point, slightly indented in the centre ; lateral lobes very small, their edges curved outwards, and having in the hollow between them, which is of a brownish yellow, a roundish oblong reddish tubercle, extending towards the base of the column, which is marked with several deep red spots. *Column* about two-thirds the length of the petals, a little curved, and rounded above, hollowed beneath and somewhat angular, with a brownish point."

The foregoing note is from Mr. Booth. The plant was sent to the Horticultural Society of London, from Mexico, by Mr. Hartweg, their collector in that country, and was found in the neighbourhood of Vera Cruz. I have also had it from the very rich collection of Thomas Harris, Esq. of Kingsbury. It is scarcely more than a yellow-flowered variety of M. variabilis.

27. PLEURŌTHĀ́LLĬS circūmplḗxă.

P. *circumplexa ;* folio coriaceo ovato emarginato in petiolum carinatum canaliculatum ipsi æqualem angustato, caule subnullo, pedunculo basi folii immerso et circumplexo, floribus capitatis ovariisque pubescentibus, capitulo disticho sexfloro basi vaginato, sepalis hiantibus erectis inferioribus in unum oblongum rotundatum supremo brevius connatis : supremo angustiore subpanduriformi, petalis lineari-oblongis ciliatis, labello crasso calceiformi serrulato margine calloso.

A curious new species of this genus, obtained from Mexico by Messrs. Loddiges, with whom it flowered in February, 1838. It approaches P. *saurocephala* and *prolifera*, differing from both in the peduncle being strictly embraced by the base of the leaf, so as to give the flowers an epiphyllous appearance. The latter are small and of a dull dirty brownish yellow colour.

28. *EPIDḖNDRŪM chlorā́nthūm.

E. *chloranthum;* pseudobulbosum, foliis coriaceis ligulatis apice rotundatis obscurè bilobis inæqualibus, racemo erecto paniculato, sepalis petalisque subæqualibus lineari-lanceolatis obovatis, labelli trilobi liberi lobis lateralibus linearibus obtusis inflexis intermedio ovato acuminato crispulo multò brevioribus: disco venis elevatis calloso.

A green flowered species, allied to the Encyclia viridiflora of the Botanical Magazine, t. 2831, from which it differs in having the leaves obtusely and obliquely two-lobed, in the side divisions of the labellum being much shorter than the middle lobe, and in the flowers being destitute of the dull purple tinge found in that species. It is a native of Demerara, whence it was sent by Mr. Schomburgk to Messrs. Loddiges. The flowers are a pale green without spots, and appear in March.

29. MILTṒNĬĂ cā́ndĭdă.

M. *candida;* sepalis petalisque lanceolatis acuminatis, labello subrotundo obsoletè quadrilobo undulato, columnâ pubescente basi bicorni.

A most charming new species of this beautiful genus, of which a single specimen flowered imperfectly with Messrs. Loddiges a few weeks since. The sepals and petals are a rich yellowish brown. The labellum is pure white, with some darker markings, of a bright pink, in the middle. The flower is nearly three inches in diameter. A figure of it will be given at some future time.

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* The reader is requested to make the following corrections of typographical errors in the last sheet.

Page 18, *for* 19. Babĭā́nă rī́ngĕns *read* Babĭā́nă rī́ngēns.

Page 22, *for* 25. Plagĭā́nthŭs Lampḗnĭĭ *read* Plagĭā́nthŭs Lāmpḗnĭī.

Page 23, *for* 26. Maxillā́rĭă varī́ăbĭlĕs *read* Maxillā́rĭă varī́ăbĭlĭs.

D. April 1838.

30. TRYMÁLĬŪM odoratíssĭmūm.

T. *odoratissimum;* foliis ovalibus integerrimis serratisve obtusiusculis petiolatis utrinque ramulisque sparsè villosis, paniculis laxis axillaribus stellato-pubescentibus foliis pluriès longioribus, calycibus stellatis petalisque glabris albis, disco 5-plicato, stylis duobus.

The genus Trymalium has lately been established by M. Fenzl, for the supposed species of Ceanothus inhabiting New Holland. They differ from Pomaderris, of which many have the habit, in the presence of a distinct plaited disk surrounding the ovary, and from Ceanothus in their indehiscent fruit. The species now defined is a new and very interesting addition to the genus; it was introduced from Swan River by R. Mangles, Esq. by whom a plant in flower was presented to the Horticultural Society of London in February 1838. It had been cultivated in a rather warm greenhouse, and was consequently a little drawn up; nevertheless its numerous loose drooping panicles of snow-white flowers rendered it a graceful and beautiful object, and its fragrance was that of the Hawthorn deprived of all that the May-flower has of sickly and oppressive. Mr. Mackay, the gardener at Sunning Hill, states that the wood is soft and pithy, and that the plant is apt to damp off in winter, if overpotted and not kept in a warm and light situation.

31. BRÁSSĬĂ macrostắchy̆ă.

B. *macrostachya;* pseudobulbis compressis margine obtusis 2-3-phyllis, foliis ligulato-oblongis striatis abruptè acutis, scapo nutante multifloro, sepalis linearibus acuminatis lateralibus longissimis, labello oblongo-lanceolato acuminato petalis longiore. *Sertum Orchidaceum, t.* 6.

A most beautiful species obtained by Messrs. Loddiges from Demerara, and resembling B. caudata, *Bot. Reg. t.* 832, which differs in the following particulars. Its pseudo-bulbs are acute at the margin not obtuse: its flowers are smaller, greener, and much more mottled with deep brown; and its labellum is ovate, acuminate, and the same length as the petals, instead of being oblong-lanceolate, and longer than the petals.

The *Sepals* are linear, acuminate, spreading, pale yellow, with a very few spots of crimson; the upper about two inches long, the lower hanging down, and six inches long. The *Petals* are the same form and colour as the sepals, curving inwards till their points cross each other, rather more than an inch long. The *Labellum* is rather more than two inches long, pale cream-colour, oblong-lanceolate, acute, crisp at the edge, with a few crimson spots at the base, where it is furnished with two elevated downy lamellæ, in front of which stand three horns, the lateral of which are erect and rather recurved, the middle one much smaller and pointing forward.

This plant is figured in the *Sertum Orchidaceum, t.* 6.

32. CĂLĀ́NTHĒ díscŏlŏr.

C. *discolor;* racemo laxo pubescente, sepalis petalisque acutis, labelli trilobi columnæ omninò accreti basi pubescentis bilamellati lobo intermedio bilobo 3-carinato, calcare pubescente acuto limbo breviore. *Sertum Orchidaceum, sub t.* 6.

This and the following species have been introduced lately from Belgium. They are handsome greenhouse species, and therefore well adapted to the means of those who wish to cultivate Orchidaceæ, but are not possessors of a stove. I do not know from what country they come, but they no doubt belong either to Java or Japan. Both are rather small species, at present not much exceeding a foot in height. In this the lip is of a delicate white, with a few dots of pink near the base. The sepals and petals are on the contrary of a deep reddish brown, a little disposed to be striped.

33. CĂLĀ́NTHĒ bícŏlōr.

C. *bicolor;* racemo laxo pubescente, sepalis petalisque acutis, labelli trilobi columnæ omninò accreti lobis subæqualibus: intermedio cuneato apiculato trilamellato basi convexo pubescente bicorni, calcare acuto limbo duplò breviore glabro. *Sertum Orchidaceum, sub t.* 6.

Flowers larger than in the preceding, bright yellow inside, and rich orange-red externally; when spread open they are nearly two inches in diameter. Mr. Auguste Mechelynck sent it to me under the name of Amblyglottis flava of Blume, which is a very different plant.

34. CĂLĀ́NTHĒ fūrcā́tă. *Bateman Mss.*

C. *furcata ;* foliis ovato-lanceolatis profundè plicatis scapo densè capitato subæqualibus, labello columnæ omninò adnato tripartito basi glanduloso-cristato laciniis lateralibus semiovatis apice rotundatis intermediâ cuneatâ divaricatim bilobâ lobis apice serratis, calcare incurvo pubescente apice furcato labello breviore.

A white-flowered species, with a scape about a foot high, received by Mr. Bateman from the Luzon islands, where it was collected by Mr. Cuming.

35. BLḖTĬĂ hāvānḗnsĭs.

B. *havanensis ;* scapo simplici foliorum longitudine, sepalis patulis ovatis acutis elamellatis, petalis supra columnam conniventibus ovatis obtusiusculis undulatis, labello subrotundo-ovato cucullato trilobo : laciniis lateralibus obtusis intermediam retusam crispam longiorem basi imbricantibus, cristis tribus lamellatis versus apicem interruptis basi evanescentibus venis duabus utrinque arcuatis varicosis.

This species differs from B. verecunda in the colour of its flowers, which are much paler, in its unbranched scape, and in the form of its lip, whose crested plates are interrupted about the base of the middle lobe, and bounded on each side by a pair of curved varicose veins. I have the following account of it from Mr. Booth.

" Introduced from the Havannah by Capt. Sutton, in the spring of 1835, and added to Sir Charles Lemon's collection at Carclew, where it flowered in March 1837.

" *Bulb* terrestrial, nearly round, about the size of a large marble. *Leaves* several, 3-5, sheathing, plaited, ensiform, from one and a half to two feet long, and an inch broad ; so thin and slender as to be almost unable to support themselves upright, of a light green colour, with five or more longitudinal ribs, which are rather prominent on the under side. *Scape* upwards of two feet and a half high, nearly erect, round and woody, of a glossy, reddish brown colour and spotted ; bearing ten or eleven peach-coloured flowers, in a loose upright panicle. *Pedicels* an inch long, of a deep brown colour, slightly channelled, with a small cordate, acuminate bractea at the base of each. *Sepals* spreading, oblong-lanceolate, a little recurved at the point and edges ; the upper one is of a paler colour, and somewhat longer, and narrower than the other two, which are crescent-shaped, and have the lower half of each deeper tinged than the upper. *Petals* oblong-obtuse and convex, closely covering the column as if it were with a hood. They are of a similar colour to the sepals, but rather paler at the edges, and of a thinner texture, with a pink coloured line up the centre of each. *Labellum* three-lobed ; the two lateral ones are rounded at the edges, which are erect and of a redder colour than either petals or sepals, and finely veined. The middle lobe is reflexed and pendent, of an irregular figure, nearly as long as it is broad, with a white undulated margin, and rather deeply indented in the centre. The colour is a deep reddish pink. Along the middle are seven, longitudinal, elevated ribs, of a yellow colour, except the outer one on each side which is nearly white. *Column* very much curved, rounded on the upper side, a little hollowed beneath, two-edged, widest at the point. Anther-case eight-celled. *Pollen-masses* 8, united in pairs.

" The plant requires the same treatment as the other Bletias, and seems to thrive in a strong loamy soil, with plenty of water when in a growing state."

36. EPIDÉNDRŪM áspĕrūm. *Lindley,*

In Hooker's Journal of Botany, p. 6.

E. *asperum;* pseudobulbis ovatis basi subangulatis diphyllis, foliis coriaceis ligulatis carinatis acutis, scapo ramoso pedunculisque subasperis, sepalis patentibus obovato-lanceolatis obtusis, petalis magis cuneatis, labello semilibero cucullato flabellatim cuneato crispo basi callo elevato pubescente obovato medio depresso apice tridentato.

This species was first known from dried specimens, collected in the western parts of the republic of Columbia by Mr. Cuming, and received its name in consequence of the scape and peduncles being covered all over with hard elevated points. It has now flowered in the valuable collection of Thomas Harris, Esq. of Kingsbury, and I am enabled to amend the character. The roughness of the branches is still visible, but chiefly in the form of little specks, and it is only after being dried that this peculiarity becomes distinct. It has dull, dingy, yellowish brown flowers, with a dull yellow lip, neatly streaked with red veins, which are a little elevated, but not enough so to be of any importance. Mr. Harris received his plant from Mexico.

37. EPIDÉNDRŪM varĭcósūm. *Bateman Mss.*

E. *varicosum*; pseudobulbis diphyllis, foliis coriaceis ligulatis acutis, scapo simplici gracili brevioribus, sepalis petalisque subæqualibus cuneato-lanceolatis carnosis vernicosis planis, labello libero unguiculato non cucullato trilobo basi pubescente: laciniis lateralibus nanis triangularibus obtusis, intermediâ reniformi emarginatâ venis tuberculatis et varicosis pictâ, callo pulvinato ovato pubescente, columnæ apice trilobæ lobo dorsali crasso cylindraceo obtuso.

One of the many small-flowered dull-coloured Epidendra with which the tropical parts of America abound. It is a native of Guatemala, whence it was imported by Mr. Bateman through his friend Mr. Skinner. The form of the lip and the varicose veins are very remarkable.

38. CYRTOCHĪ́LŪM mystacī́nūm.

C. *mystacinum*; pseudobulbis ovalibus compressis corrugatis monophyllis basi polyphyllis, foliis ligulatis acutis planiusculis carinatis scapo ramoso multò brevioribus, bracteis lanceolatis pedunculis duplò brevioribus, sepalis petalisque ovatis acuminatis, labello unguiculato cordato obovato-lanceolato subrepando plano apice reflexo medio pubescente basi obsoletè lamellato, columnæ alis multifidis.

A Peruvian Orchidaceous plant which flowered in the stove of Richard Harrison, Esq. of Aighburgh, in October, 1837. It has a branched scape like that of an Oncidium, bright yellow white-coloured flowers, with a most curious fringed or whiskered column.

39. CYRTOCHĪ́LŪM maculā́tūm.

C. *maculatum*; pseudobulbis ovatis compressis subangulatis diphyllis basi foliosis, foliis latè ligulatis acuminatis striatis apice obliquè emarginatis, scapo simplici (?) bracteis brevissimis squamæformibus, sepalis petalisque carnosis obovato-lanceolatis acutissimis, labello membranaceo oblongo apiculato utrinque dentato lamellis duabus ad basin et corniculo utrinque, alis columnæ falcatis integerrimis.

An Orchidaceous plant found near Vera Cruz by Mr. Hartweg, and by him sent to the Horticultural Society. It has rather large flowers, with a greenish yellow ground colour, blotched with deep rich purple, and a whitish lip, with a few stains of dull red. I have also received it from Messrs. Rollissons.

40. SPECKLĪ́NĬĂ cĭliā́rĭs.

S. *ciliaris;* folio angustè lanceolato obtuso cauli subæquali, spicis secundis fasciculatis folio duplò brevioribus, sepalis carinatis ciliatis inferiore bifido, petalis ellipticis obtusis apice ciliatis, labello obovato obtuso ciliato trinervi, columnâ apice fasciculatim ciliatâ.

A small plant, resembling a Lepanthes, with purplish green leaves, and dull green purple-spotted flowers; imported from Mexico by Messrs. Loddiges.

41. SPECKLĪ́NĬĂ orbĭcŭlā́rĭs.

S. *orbicularis;* folio subrotundo-ovato emarginato caule breviore, floribus fasciculatis, sepalis lineari-oblongis glabris inferiore bipartito, petalis ellipticis acutis serratis, labello ovato rostrato basi concavo apice ciliato obtuso, columnâ apice serratâ.

A small plant, resembling the preceding in habit, but with both the leaves and flowers more purple. It was imported by Messrs. Loddiges from Demerara. Both these have the loose sheaths on the stem, such as are characteristic of Lepanthes, but neither of them offers the slightest transition to that curious genus.

42. EPIDÉNDRŪM pachyánthūm.

E. *pachyanthum;* pseudobulbosum, foliis lato-ligulatis subundulatis apice obliquè obtusis dorso rotundatis, perianthio carnoso herbaceo, sepalis lanceolatis, petalis obovato-lanceolatis apice complicatis, labelli liberi trilobi laciniis lateralibus ascendentibus truncatis intermediâ spathulatâ acutâ basi callosâ convexâ inappendiculatâ multò brevioribus.

A large green-flowered species, sent to Messrs. Loddiges from Guayana, by Mr. Schomburgk. Its leaves are thinner and broader than is usual among the pseudobulbous Epidendra, and a little wavy at the margin. The flowers are fully two inches in diameter, thick and fleshy, dull green, stained with a dirty reddish brown towards the ends of the sepals and petals. The labellum is a pale straw-colour, streaked along the middle with violet.

43. EPIDÉNDRŪM píctūm.

E. *pictum;* pseudobulbosum, foliis ligulatis coriaceis obtusis dorso rotundatis, racemo erecto paniculato, sepalis petalisque obovato-linearibus subæqualibus, labelli trilobi liberi lobis lateralibus linearibus acutiusculis subfalcatis columnam amplexantibus margine anteriore plicato intermedio ovali acuto crispo multo brevioribus, disco venis elevatis calloso.

One of the numerous unpublished species resembling *E. odoratissimum;* with dull yellow flowers, neatly striped with crimson. It is very nearly related to *E. chloranthum*, from which its leaves readily distinguish it. Messrs. Loddiges received it from Demerara.

44. EPIDÉNDRŪM smarágdĭnūm.

E. *smaragdinum;* caule gracili ad fastigium ipsum folioso, foliis lineari-lanceolatis acuminatis subdistichis, spicâ terminali paucíflorâ rigidâ nutante foliis breviore, bracteis acuminatis squarrosis ovario ventricoso cuniculato brevioribus, sepalis lineari-oblongis acutissimis, petalis angustissimis acuminatis, labello cuneato cordato carnoso apice tridentato basi bicalloso: laciniis æquilongis lateralibus rotundato-truncatis intermediâ acutâ decurvâ.

A species closely allied to *E. orchidiflorum*, with small bright green flowers of no beauty whatever, and hardly distinguishable from the leaves. It is a native of Demerara, whence it was obtained by Messrs. Loddiges. It flowers in March.

45. PHYSÍNGĂ prostrátă.

PHYSINGA G. nov. (Epidendreæ). Sepala membranacea, æqualia, basi connata. Petala minora, basi sepalis obliquè adnata. Labellum carnosum, tuberculatum, indivisum, cum basi columnæ connatum, sacco vesiciformi basi auctum. Columna carnosa, nana, biloba, basi imâ antherifera. Pollinia 4, filis duobus geminatis pulvereis adnata. Stigma, area minuta, madida, bidentata, supra faucem vesicæ.

P. *prostrata.* Caulis prostratus, brevis, anceps, densè et distichè foliosus. Folia crassissima, ovato-lanceolata, acuta, amplexicaulia, dilutè purpurascentia, striata. Scapus terminalis, filiformis, prostratus, ramosus, 8-9 pollices longus, vaginis angustis, fusco-purpureis, acutis, carinatis, striatis, arctè vestitus. Flores pauci, parvi, apice ramorum, herbacei, dilutè purpureo suffusi. Calycis laciniæ acuminatæ, patentes. Petala angustè lanceolata, acutissima. Labellum albidum, obovatum, acutum, apice recurvum, basi auriculis carnosis inflexis auctum; lineâ mediâ callosâ tuberculisque duobus anticè procurrentibus; vesica sphæroidea, viridescens. Columna alba, auriculis imis labelli brevior, basi ipsâ tantum labello adnata

This is an Orchidaceous plant of no beauty, but one of the most curious that I am acquainted with. It has much of the habit of an Epidendrum, and is not at all unlike E. orchidiflorum in its manner of growth; but it belongs to no genus hitherto described. The sepals are united at the base into a cup as in Masdevallia; the labellum has a little bladder-like pouch at its base, in room of a spur: and the column, which is very small, is more like that of a Cypripedium than anything else. Messrs. Loddiges obtained it from Demerara.

46. CLEISÓSTŎMĂ tridentátă.

C. *tridenta;* foliis lineari-lanceolatis subcarinatis apice oblique tridentatis, racemis horizontalibus paucifloris foliis brevioribus, sepalis lineari-oblongis rectiusculis, petalis linearibus falcatis, labello trilobo intus pubescente laciniâ intermediâ obsoletâ obtusâ lateralibus ovatis acuminatis marginibus involutis: dente calcaris obtuso inflexo hirsuto, calcare pendulo apice obtuso subventricoso.

A small flowered epiphyte, of no beauty, with the habit of a Saccolabium. It is a native of New Holland, from whence it was obtained by Messrs. Loddiges. The flowers are very small, of a dull, dirty, reddish white, mixed with a little yellow. The pollen-masses are remarkable for having each a concave membrane, in the form of a watch glass, adhering to them at the back; these are undoubtedly the back valves of the anther case, which separate all round and adhere slightly to the apex of the caudicula, below the pollen-masses.

47. EPIDÉNDRŪM cucullátūm.

E. *cucullatum;* caule compresso folioso, foliis lineari-lanceolatis acutis, pedunculo terminali squamato paucifloro foliis multò breviore, rachi brevi flexuosâ, sepalis petalisque erectis ovato-lanceolatis acutis, labello obovato acuto adnato: lineâ media tuberculisque duobus basilaribus callosis, antherâ longè infra apicem clinandrii cucullati dentati truncati insertâ.

One of the most unattractive of this large genus. The flowers are small and white, at the top of a leafy stem about nine inches high; the anther is remarkable for being inserted far below the apex of the column, in which respect the species approaches the genus *Physinga.* Obtained from Para by Richard Harrison, Esq. of Liverpool.

48. PLEUROTHÁLLĬS ophiocĕ́phălă.

P. *ophiocephala ;* folio oblongo emarginato concavo carnoso caule breviore, flore solitario e spathâ duplici membranaceâ carinatâ erumpente, sepalis oblongis obtusis hiantibus intus papillosis extùs pubescentibus inferiore latiore emarginato, petalis lineari-oblongis intus villosis labello duplò minore lineari-ovato obtuso carnoso glabro canaliculato marginibus elevatis truncatis.

A most curious Mexican species, for which I have to thank Messrs. Loddiges and Mr. Barker of Birmingham. It has no beauty, but is remarkable for having one solitary flower protruding from the base of the leaf, and so similar to the head of a snake with the jaws open, that it is difficult at first sight to believe it really a flower that one looks upon. To add to the deception, the small labellum is shaped like a tongue, and moves up and down when you peep into the mouth of the flower. The stem of the leaf is strong, terete, six inches long, with one long striated brown sheath in the middle; the leaf is remarkably thick and fleshy, and above four inches long; the flower is dull yellowish brown, spotted with dull purple, and nearly three-quarters of an inch long.

49. EPIDḖNDRŪM longicṓllĕ.

E. *longicolle ;* caule erecto compresso folioso, foliis linearibus apice angustatis, floribus aggregatis terminalibus nutantibus foliis brevioribus, sepalis lineari-lanceolatis acuminatis patentibus, petalis linearibus acutis supra columnam convergentibus, labelli trilobi lobis lateralibus semiovatis acutis integerrimis intermedio lineari-acuminato paulo brevioribus: lamellis 2 callosis ad basin, collo ovarii elongato.

A species nearly allied to *E. nocturnum*, but much less handsome. The sepals and petals are pale yellow; the lip white, with two yellow plates at the base. It was obtained by Messrs. Loddiges from Demerara.

50. SARCOCHĪ́LŬS parviflṓrŭs.

S. *parviflorus ;* foliis oblongis undulatis chartaceis apice acute et oblique bidentatis, raccmis nutantibus quadrifloris, sepalis lineari-obovatis acutis lateralibus basi dilatatis, petalis falcatis obtusis, labelli cum columnâ articulati lobo medio minimo transverso rotundato: disco callis variis crassis rotundatis tuberculato.

A small flowered epiphyte introduced from New Holland by Messrs. Loddiges. It has no claim to beauty, but is interesting as a second species of the genus Sarcochilus. The flowers are green, with a few spots of dull purple in the sepals. The labellum is less green, beneath indeed almost white, banded with dull purple, *articulated* with the column, and covered over in the inside with various crowded tubercles, of which the three largest form a crescent next the apex of the lip.

51. PHILADḖLPHŬS triflṓrŭs. *Wallich.*

A plant of this rare species, raised from seeds obtained from the Himalaya mountains by Dr. Royle, has lately flowered imperfectly in the garden of the Horticultural Society. It has the habit of *P. laxus*, and is slightly but agreeably fragrant. It will probably prove quite hardy; and is no doubt distinct from *P. tomentosus* from the same country, which more resembles *P. grandiflorus*.

52. RĪ́BĒS Menziḗsĭī. *Smith.*

Among the last parcel of Californian seeds received by the Horticultural Society from the late Mr. Douglas, were some of a Ribes, allied to *R. speciosum*, which have now been ascertained to belong to this rare and little known species. The young branches are densely covered with fine slender bristles, so as to give the plant the appearance of *R. lacustre*, but it is totally different from that species in its flowers, which are solitary, axillary, and nodding in the axils of the leaves. Judging from dried specimens, they must be nearly of the same colour as R. speciosum, but paler. They are smaller, and have not the long projecting crimson stamens which give R. speciosum so strikingly beautiful an appearance. The plants have not yet flowered, but may be expected to do so next year; they appear to be hardy.

53. CIRRHOPĔ́TĂLŪM cæspĭtṓsūm. *Wall. Mss.*

C. *cæspitosum;* pseudobulbis ovatis monophyllis, foliis angustè ovalibus obtusis basi angustatis scapo longioribus, scapo filiformi erecto vaginis paucis membranaceis carinatis acutis distantibus laxè vestito apice umbellato, sepalo supremo obovato fornicato acuto margine scabro lateralibus acuminatis convolutis triplò longioribus, petalis ovatis apiculatis pectinato-serratis, labello minimo solido triquetro apice recurvo angulis superioribus marginatis.

A little epiphyte, forming part of the noble collection of plants imported sometime since from the East Indies, by His Grace the Duke of Devonshire, and now preserved at Chatsworth. It has small, pale, yellow-ochre coloured flowers, without any thing striking about them. It flowered in the beginning of April.

54. DENDRṒBĬŪM cā́ndĭdūm. *Wall. Mss.*

D. *candidum;* caulibus erectis flexuosis teretibus, foliis ovato-lanceolatis apice obliquis obtusis, pedunculis axillaribus erectis bifloris, sepalis patulis lateralibus basi parùm productis, petalis conformibus, labello ovato-lanceolato obtuso medio barbato supra basin calloso lateribus erectis cucullatis.

For flowers of this I am indebted to His Grace the Duke of Devonshire, who sent them to me in the beginning of April; I have since been favoured by Mr. Paxton with a sketch of the plant. It was found by Mr. Gibson, his Grace's collector in India, at Nungclow, on the north side of the Khoosea Hills, growing on rocks, sand, and decayed trees. The flowers, which are pure white, are most exquisitely scented. The habit of the plant is that of *Dendrobium nobile;* that is to say, erect, not pendulous as in *D. Pierardi* and that race. The stems are about a foot high, and lose the principal part of their leaves before flowering.

55. OCTOMĔ́RĬĂ grắcĭlĭs. *Loddiges Mss.*

O. *gracilis;* folio lineari-carinato apiculato recurvo, floribus paucis fasciculatis, labelli emarginati lobis lateralibus erectis rotundatis.

An inconspicuous species of this genus, having flowers very like those of *O. Baueri*, but smaller and with a differently shaped lip, and very narrow, channelled, recurved leaves. It was received by Messrs. Loddiges from Rio Janeiro.

56. ONCĬ́DĬŪM tetrapĕ́tălūm. *Gen. & Sp. Orch.* 198.

A small plant of this beautiful little species, imported from Jamaica by John Henry Lance, Esq. has lately flowered in the garden of the Horticultural Society. It proves to have triquetrous leaves, and therefore has been arranged in its wrong place in the work above quoted. Although the flowers are among the smallest in the genus, they are extremely pretty. The labellum is a pure dead alabaster white, except at its base, where it is covered with yellow and brown tubercles. The sepals and petals are gaily barred and spotted with brown, while the column has two large pink-spotted spreading wings. Jacquin describes the species as having a flowering scape two feet high ; that which appeared in the Horticultural Garden was scarcely more than six inches high, for the plant, though healthy, was weak, and had suffered from its voyage. When in perfection this species will be found among the handsomest of the small-flowered epiphytes.

57. PULTENǼĂ obcordā́tă.

Plants of this pretty leguminous species, raised from Van Diemen's Land seeds, flowered lately in the garden of Robert Mangles, Esq. of Sunning Hill. It is a hardy greenhouse shrub, of the easiest cultivation.

58. VANĪ́LLĂ bíc̆ŏlŏr.

V. *bicolor ;* foliis ovato-oblongis subsessilibus acutis striatis margine rubescentibus, sepalis lineari-lanceolatis acutis patentibus dorso rotundatis, petalis conformibus dorso carinatis, labello membranaceo semilibero convoluto venis ramentaceis medio densè ramentaceo-stuposo, columnâ barbatâ : auriculis crenulatis.

A deliciously fragrant climbing epiphyte, sent by Mr. Schomburgk to Messrs. Loddiges from Guayana. Its flowers are full three inches long, with dull red sepals and petals, and a cream-coloured lip. It is very different from any species yet described in this most curious and interesting, but little studied genus. It flowered freely in the month of April.

59. CYMBĪ́DĬŪM virḗscēns.

C. *virescens ;* (Eucymbidium) foliis gramineis recurvis serrulatis subtrinerviis, scapo laxè vaginato unifloro, pedunculo tereti bracteâ duplò longiore, sepalis linearibus obtusis concavis patentibus, petalis brevioribus conformibus supra columnam conniventibus, labello oblongo indiviso apice revoluto imberbi plicis duabus carnosis lamellatis apice liberis foveâ truncatâ irregulari utrinque infra apicem plicarum.

A native of Japan, whence it was brought to Europe by Dr. Siebold. It flowered in April in the nursery of Messrs. Rollissons of Tooting. It has greenish sepals and petals, about an inch and half long, and a pale dull yellow lip slightly blotched with dull red. I did not remark any smell. No doubt this will prove a greenhouse species.

60. CHÆNÁNTHĒ Barkḗrī.

Chænanthe, *G. n.* (*Nat. ord.* Orchidaceæ, § Vandeæ). Perianthium ringens. Sepalum superius erectum; lateralia connata, basi productæ columnæ adnata, saccata, porrecta. Petala basi valdè obliqua, et columnæ productæ adnata, revoluta, sepalis majora et magis membranacea. Labellum cum columna connatum, basi in calcar cum basi columnæ productum, trilobum. Anthera anticè truncata. Pollinia 2, pyriformia, in caudiculam linearem deflexa.

Chænanthe Barkeri.

This most singular plant is a native of Para, whence it was imported by Geo. Barker, Esq. of Birmingham, who sent me specimens in April last. In no plant that I am acquainted with is the obliquity of the flower more striking than in this. In the first place the lateral sepals are lengthened into a bag, which hangs down in front of the ovary; then the petals are stretched out at their base to adapt themselves to this; further, the labellum is connate with the column for nearly all its length, the latter being lengthened so as to fill up the bag of the sepals; and, finally, the anther is abruptly truncated in front, and the two pollen-masses are bent down upon the caudicula so as to lie almost parallel with it. The genus is nearest allied to Notylia, in natural affinity.

61. EPIDÉNDRŪM altíssĭmūm. *Bateman in litt.*

E. *altissimum;* pseudobulbis elongatis teretibus 2-3-phyllis, scapis ramosis longissimis, sepalis lineari-oblongis acutis, petalis conformibus basi angustatis, labelli liberi lobis lateralibus dimidiatis erectis tortis obtusis intermedio dilatato undulato recurvo apiculato basi bicostato.

Communicated by Mr. Bateman with the following note: "Found in rocky parts of the Bahamas by the indefatigable Mr. Skinner, from whom I received it in the summer of 1837. This and other pseudo-bulbous Epidendra grow in the greatest profusion in the situation described; and though at the period of Mr. Skinner's visit they were in a parched and torpid state, he was informed by a resident that during the season of their flowering they scented the air to an extraordinary and almost insupportable degree. To this 'excess of sweets' E. altissimum contributes a powerful odour resembling bees-wax; but in potency it is far surpassed by another unpublished species from the same quarter, for which I am also indebted to the zeal and liberality of Mr. Skinner, and which yields a perfume at once delicate and powerful, and so closely resembling that of our wild English primroses, that I have in consequence named it 'E. primulinum.'"

I have also received it from Messrs. Rollissons. It is very like Epid. oncidioides, *Bot. Reg. t.* 1623, from which its long pseudo-bulbs, gigantic stature, and labellum, alone distinguish it.

62. ACǍCĬĂ cultrifórmĭs. *A. Cunningham,*

in Hooker's Ic. plant. ii. *t.* 170.

This species has flowered in the collection of Messrs. Rollissons, and proves a most charming conservatory plant, with quantities of clusters of yellow flowers, terminating branches covered with glaucous half rhomboidal leaves.

63. ONCÍDĬŪM stramíněūm. *Bateman in litt.*

O. *stramineum;* ebulbe, foliis crassis carnosis ovato-lanceolatis acutis dorso rotundatis scapo paniculato rigido erecto brevioribus, sepalis subrotundis unguiculatis concavis liberis integerrimis, petalis duplò majoribus oblongis obtusis emarginatis margine crispis, labelli lobis lateralibus oblongis carnosis margine revolutis basi columnæ proximâ nectariferis intermedio reniformi plano emarginato majoribus, tuberculis disci 4 geminatis, columnæ alis carnosis linearibus obtusis elongatis genuflexis decurvis.

A beautiful stove epiphyte, sent from the neighbourhood of Vera Cruz to the Horticultural Society by their collector, Mr. Hartweg. It has pale straw-coloured flowers, about as large as those of *O. flexuosum*, with a faint smell of primroses. The base of the lower sepals, the lower part of the lip, the column, and a line along the origin of the petals are neatly dotted with brown. Honey is secreted by the lip at the base of the lateral lobes next the column. Young plants are very like *O. pumilum*, for which they may be mistaken: but they have much thicker leaves.

64. MASDEVĀ́LLĬĂ infrā́ctă.

Gen. & Sp. Orch. p. 193.

This curious plant has just flowered with Messrs. Loddiges, who imported it from the Brazils. It has pale, whitish-yellow flowers, slightly tinged with pink, and yellow cirrhi; and it proves that my conjecture was right, that the genus would belong to Malaxideæ and not to Vandeæ. I find the pollen-masses to be two, half-pyriform, without any gland. It seems to be an abundant flowerer. M. Descourtilz found it on the cold wooded mountains which separate Canta Gallo from the province of Rio Janeiro, with bright purple flowers. Sir W. Hooker received it from the Organ Mountains; and I find it in a collection of dried plants gathered near Rio Janeiro by Mr. Gardner, (No. 647.)

65. SPIRǢ́Ă barbā́tă. *Bot. reg. t.* 2011.

In publishing this plant I overlooked two of its synonyms, which have been pointed out to me by their respective authors. One is the *Astilbe rivularis* of Professor Don; the other is the *Hoteia japonica* of M. Decaisne (*Ann. sc. 2. ser.* ii. 317. *t.* 11.) In both these cases the plant has been considered to belong to Saxifragaceæ and not to Rosaceæ. How far that opinion is correct will be determined by the structure of the seeds, which have not yet been examined. If they have no albumen, the plant will remain a Spiræa; if albumen is present, the name Hoteia will be retained: for certainly the species is no Astilbe.

66. EPIDḖNDRŪM sellī́gĕrūm. *Bateman in litt.*

E. *selligerum;* pseudobulbis 2-3-pollicaribus, scapo subramoso, sepalis patentissimis obovatis concavis obtusis, petalis unguiculatis spathulatis acutis, labello semilibero laciniis lateralibus obtusis recurvis planis intermediâ ovatâ acutâ crispatulâ: disco elevato carnoso, antherâ bilobâ terminali.

A native of Guatemala. Mr. Bateman's note about the species is as follows:—" Another of the many interesting discoveries of Mr. Skinner, who kindly sent it to me in 1836. It is a very pretty and distinct species, a free grower, and yields a perfume as delightful as that of the Tuberose, and very similar to it. Two distinct species have already flowered with me, one of which has a white lip, the lateral lobes of which are nearly upright, while in the other the lip is rose-coloured, and its lateral lobes bent back. The flowers of both varieties are very durable." The sepals and petals are a dull, dingy, brownish purple.

67. BRASÁVŎLĂ angustā́tă.

B. *angustata ;* sepalis petalisque linearibus acuminatissimis collo ovarii longioribus, labello ovato acuminato serrulato basi haud cucullato, clinandrii trilobi lobo medio incurvo integro lateralibus cuneatis flabellatim incisis.

A fine new species, imported from Demerara by — Wilmore, Esq., of Oldford, near Birmingham. The flowers are large and long-stalked, of a pale yellowish green, with a narrow fringed white lip. It differs from B. cucullata in the lip not being at all cucullate at the base. The leaves are very long and slender.

68. ACANTHOPHĪ́PPĬŪM striā́tūm.

A. *striatum ;* petalis oblongis acutis sepalisque apice revolutis, labelli lobis lateralibus rotundatis intermedio acuto carnoso utrinque plicato: disci callo solitario elevato longitudinali.

For this I am obliged to Mr. Bateman, who received it as a Nepal plant from Her Majesty's Botanic Garden at Kew. It is very inferior in appearance to A. bicolor, having pale " French white" flowers, with dull longitudinal stripes, and not a single stain of brilliant colour. The flowers are smaller than in the species just mentioned, and their lower sepals are so much contracted into a pouch at the bend of the column-foot, as almost to form a spur; the labellum has long rounded side-lobes, a small, contracted, tawny-spotted, acute middle lobe, and a single elevated callosity running down its middle. Mr. Bateman adds, that it has larger, narrower, and more attenuated pseudo-bulbs, a three-flowered scape, and leaves like those of A. *bicolor.*

F. June 1838.

I take this opportunity of stating, that the genus Acanthophippium does not belong to *Vandeæ*, as I formerly supposed, from the examination of an imperfect specimen, but in reality should be stationed in *Epidendreæ*, where it represents the Maxillaria of Vandeæ, and the Dendrobium of Malaxideæ; an interesting fact with reference to systematical purposes. It should be placed near Bletia and Phaius.

69. STÉLĬS trísty̆lă.

S. *tristyla ;* folio oblongo concavo subundulato spicâ breviore, spicâ erectâ laxâ subtortili, bracteis membranaceis cucullatis cuspidatis, calyce triangulari, petalis truncatis carnosis, labello truncato medio sulcato, columnâ depressâ angulis tortis incurvis facie superiore viscidâ stigmaticâ.

A species imported from Brazil by Messrs. Loddiges, and, like the rest of the genus, not at all remarkable for beauty, although one of the largest that we yet have seen. It flowered in April.

70. PLEUROTHÁLLĬS marginátă.

P. *marginata ;* folio obovato biconvexo marginulato caule pluries longiore racemo laxo erecto multò breviore apice obsoletissimè tridentato, sepalis subfalcatis carinatis lateralibus semiconnatis, petalis linearibus obtusis apice callosis, labello lineari obtuso canaliculato.

A very small species with the habit of P. *Grobyi*, and of no beauty. It was sent to Mr. Bateman from Guatemala, by Mr. Skinner, and grows in dense tufts on the branches of trees.

71. PLEUROTHÁLLĬS aphthósă.

P. *aphthosa ;* folio ovali coriaceo subtùs discolore cauli carinato triquetro æquali, spathâ bivalvi pauciflorâ, floribus subsessilibus tomentosis carnosis fragilibus, sepalis oblongis convexis subæqualibus intus papillosis lateralibus basi connatis, petalis ovatis acutis glabris subdiaphanis, labello ovato carnoso obtuso antice papilloso basi excavato glabro, columnâ petalorum longitudine, clinandrio cucullato crenulato.

A Mexican species of this extensive genus, for which I am obliged to Mr. Bateman, who received it from the Birmingham Botanic Garden, without a name. Its leaves are between three and four inches long, dull purple at the edge, and brighter underneath; the flowers are dull yellow, tomentose externally, and scarcely longer than the two-valved spatha. The sepals are very thick and brittle, smooth inside, and covered at the end and towards the edges with little elevated purple warts; the petals are almost transparent and a very light dull yellow; the labellum is fleshy, and dull deep purple.

72. PHYCÉLLĂ biflōră.

P. *biflora;* foliis linearibus compressis obtusis glaucis crassis margine rotundatis scapi biflori subpedalis longitudine, spathâ bivalvi erectâ subherbaceâ pedunculis longiore, perianthio campanulato basi conico, laciniis æqualibus apice recurvis ad basin usque liberis, appendicibus coronæ lanceolatis acuminatis fissis trifidisque ferè $\frac{1}{3}$ longitudinis filamentorum æquantibus.

A plant of this beautiful bulb was exhibited at a meeting of the Horticultural Society in Regent Street, on the 17th of April, and was distinguished by a medal. It was received from Mr. Toward, Gardener to Her Royal Highness the Duchess of Gloucester, at Bagshot, and had been obtained from Chile. None of the species of this charming genus that I have yet seen are to be compared with it for beauty; the flowers are fully two inches long, with an expansion of as much; their tube is a clear bright greenish yellow, while their upper end is of the most vivid scarlet, just tinged with purple. The processes of the tube of the flower, by which the genus is known, are nearly half an inch long, lanceolate, and split into two or three sharp-pointed lobes. It is a frame bulb, and well worth cultivation, bearing the air of a sitting room while in flower without inconvenience. The specimen now described was kept from the Tuesday to the Friday, in the dry air of a room warmed by an Arnott's stove, and it did not fade in the least, although the plant had previously been sent from Bagshot to Regent Street, and then from Regent Street to Turnham Green.

73. BLÉTĬĂ Shephérdĭī. *Bot. mag. t.* 3319.

This plant has lately flowered in the garden of the Horticultural Society, and I find it is only a dark-flowered variety of Bletia verecunda; it does not appear to be distinguishable by any character of importance.

74. MAXILLÁRĬĂ mắdĭdă.

M. *madida;* caulescens, pseudobulbis ovatis elongatis subteretibus sulcatis diphyllis secus caulem imbricatis, foliis lanceolatis linearibusque acutis subplicatis canaliculatis, floribus solitariis intra spatham siccam squamosam subsessilibus, sepalis subparallelis acutis lateralibus basi parùm productis, petalis conformibus; labelli trilobi medio callosi lobis lateralibus inconspicuis intermedio rotundato plano obtuso recurvo disco madido et discolore, columnâ clavatâ arcuatâ labello longiore.

The species now described is one of the least showy of the large genus to which it belongs; it is nearly related to *M. acicularis,* which, with some others in the possession of Messrs. Loddiges, forms a well marked group. The flowers are a dull dirty yellow, spotted obscurely with yellowish brown. The labellum has a broad chocolate-brown blotch at the end, where it is so shining as to look as if wetted; this circumstance has suggested the specific name. It is a native of Brazil.

75. CŒLŎGY̆NĒ prolĭ́fĕră. *Gen. & Sp. Orch.* 40.

This plant has flowered at Chatsworth, among the numerous species brought to the Duke of Devonshire by Mr. Gibson, from the East Indies. Its flowers are small, pale, brownish yellow green, with brown veins. It corresponds very well with the character assigned it in the above work, except that the pseudobulbs are not angular, but quite terete, or only slightly compressed when old.

76. EPIDÉNDRŪM ĕquĭtāns.

E. *equitans;* caule folioso ancipiti, foliis equitantibus ancipitibus lanceolatis acuminatis, flore solitario terminali pendulo, pedunculo ancipiti, spatha diphylla foliolo inferiore erecto foliaceo flore longiore, sepalis linearibus acuminatis patulis, petalis conformibus paulò brevioribus, labello ovato-lanceolato complicato cum columnâ basi connato medio trilamellato; lobo medio carnoso semitereti recurvo lateralibus erectis membranaceis integris.

A very curious species in its habit, which resembles Fernandezia so much that no one could have doubted its belonging to that genus, until it flowered. It, however, proves a genuine Epidendrum. The single flower is of a dull chocolate brown. Mr. Hartweg sent it to the Horticultural Society from near Vera Cruz in 1836.

77. GÚNNĬĂ píctă.

G. *picta;* labelli lobo intermedio minuto dentiformi lateralibus oblongis dimidiatis rotundatis sacco cornuto puberulo æqualibus; disco utrinque bidentato basi bidenticulato.

A curious little plant received from the neighbourhood of Sydney by Messrs. Loddiges. It has small dingy purple flowers, with a white labellum, neatly streaked with purple. It differs from Gunnia australis in the flowers being much smaller, with a very dissimilar labellum.

78. BULBĪNĒ suāvĭs.

B. *suavis;* radice fasciculatâ, foliis longissimis attenuatis semiteretibus basi canaliculatis glaucis, racemo erecto multifloro, petalis oblongis subundulatis sepalis duplò latioribus, staminibus ascendentibus filamentis apice stuposis petalinis patentibus sepalinis erectis apice incurvis brevioribus.

This pretty greenhouse plant was found by Major Mitchell, the indefatigable Surveyor General of New South Wales, in his last journey into the interior of New Holland, in 1836. It resembles Bulbine annua in the tint of its yellow flowers, but they are much larger, are arranged in a longer raceme, and diffuse a delicious fragrance, resembling that of Mignonette. The scape is between two and three feet high. It flowered in the garden of the Horticultural Society in May 1838. Its root was dug up in the rich plains of Australia Felix, about the 22nd of September, 1836, and it had at that time a much longer head of flowers than the specimen now described.

79. ELISĒNĂ longipĕtălă.

E. *longipetala;* perianthii laciniis acuminatissimis convolutis.

Folia numerosa, ferè bipedalia, sesquiunciam lata, lætè viridia, subacuta, leviter carinata, margine lævia, subtùs glaucescentia. *Scapus* 2-3-pedalis, ancipiticonvexus, solidus, cœruleo-viridis, vix glaucescens. *Umbella* 5-flora, spathâ polyphyllâ scariosâ reflexâ; pedicelli rigidi, semunciam longi, trigoni. *Ovarium* trigonum, ovatum, levitèr glaucescens, triloculare; *loculis* apice inanibus, basi dispermis; *ovulis* erectis obovatis, carnosis. *Perianthium* tubo brevi (semunciali) herbaceo, rigido, trigono, cum ovario continuo sed demum marcescente; laciniis 4 uncias longis, linearibus, acuminatissimis, pone basin dorso herbaceis, cæterum albis, 2 inferioribus cæteris paulò magis declinatis, omnibus demùm reflexis et convolutis. *Corona* alba, membranacea, cylindracea, sesquiuncialis, declinata, apice paulo dilatata, margine 6-fido, revoluto: laciniis irregulariter tridentatis, dente intermedio productiore. *Stamina* 6, declinata, subæqualia; *filamentis* subulatis, glaberrimis, perianthio subæqualibus; *antheris* linearibus, irregulariter cohærentibus. *Stylus* filiformis, declinatus, glaber; stigmate simplici, haud dilatato, vix papilloso.

To the cultivators of bulbous plants this fine species will form a welcome addition. It is very nearly related to the *Pancratium ringens* of the Flora Peruviana, out of which Mr. Herbert has formed his genus Elisena, and like it is a native of Peru. It was obtained from Lima by Richard Harrison, Esq. of Aighburgh, near Liverpool, and it blossomed in the stove of that gentleman in May 1838. The leaves are much like those of an Amancaes; the flowers are of a delicate semi-transparent white, and are remarkable for their long weak sepals, which are rolled up, and in that state scarcely wider than the long white declinate stamens. The technical description given above will enable the Botanist to see how very distinct this genus is from Pancratium.

80. GRAMMATOPHY̆LLŪM multiflōrūm.

G. *multiflorum;* racemo erecto longissimo multifloro, bracteis ovato-oblongis obtusis squamiformibus dorso convexis, sepalis oblongis obtusiusculis planis, sepalis acutis subconformibus angustioribus, labelli trilobi pubescentis medio hirsuti lobo intermedio plano oblongo rotundato lateralibus erectis subfalcatis, jugo carnoso elevato in medio basi lobi intermedii interrupto cis apicem evanescente, columnæ margine supra basin elevato flexuoso incurvo foveam altam obconicam circumdante.

This fine plant was sent home in 1837, from Manilla by Mr. Cuming; and was believed to be the famous *Letter-plant* of the Malayan Archipelago. It, however, appears from a noble specimen of the flowers sent me from Knypersley, by Mr. Bateman, that, although belonging to the genus it is a very different species, far inferior in beauty to the Letter-plant. Such remarks as I may have to make upon it are reserved until the publication of a figure which has been prepared for that purpose.

81. EPIDÉNDRŪM tridācty̆lūm.

E. *tridactylum;* caule fusiformi gracili apice distichè folioso, foliis angustè oblongis apice paulo angustatis obtusis cum mucronulo, spicâ terminali tripartitâ multiflorâ foliis longiore, sepalis subrotundo-ovatis patentibus incurvis lateralibus majoribus, petalis spathulatis linearibus apice incurvis, labello ascendente tripartito basi bicalloso: laciniis linearibus carnosulis lateralibus margine involutis intermediâ breviore planâ, columnâ brevi crassâ cuneatâ labello omninò adnatâ.

A curious Brazilian Orchidaceous plant, with smaller flowers than any other species of the genus yet in the gardens; I am obliged for it to Stephen Cannon, Esq. of Stratford Green. The flowers are a pale brownish yellow, except the column which is green, short, thick, and wedge-shaped. Flowered in the stove in May, for the first time.

82. EPIDÉNDRŪM caulīflōrūm.

E. *cauliflorum;* caule tereti, foliis ovato-oblongis planis acuminatissimis, corymbis brevibus axillaribus e latere caulis erumpentibus, sepalis angustis oblongis patentissimis subæqualibus concavis, petalis linearibus apice cuneatis acutis reflexis, labello columnæ arcuatæ clavatæ omninò accreto cuneato-subrotundo trilobo; lobo intermedio truncato tridentato lateralibus rotundatis repandis, callis tribus linearibus in medio labelli lateralibus majoribus.

A native of Rio Janeiro, whence it was obtained by Messrs. Loddiges. The flowers are about the size of those of E. *nutans,* of a pale straw-colour, and are remarkable for appearing from the side of the stout cylindrical stem, bursting forth from among the dry sheaths with which it is closely invested.

83. PANÆTĬĂ fūlvă.

P. *fulva;* foliis oblongis acutis sessilibus arachnoideo-incanis integerrimis, capitulis corymbosis, squamis involucri lineari-lanceolatis acutis obsoletè serrulatis medio plumosis, setis pappi radialis 5-6 discoidalis 9-10.

A beautiful little annual plant, with the habit of a Gnaphalium, introduced from Swan River by R. Mangles, Esq. It flowered in May 1838, and proved to differ from P. Lessonii in the shape of the involucral scales, in the number of setæ of the pappus, and in being a larger plant covered with a cobweb-like hoariness. The flower-heads are of the red-gold colour of Helichrysum bracteatum, dry like many everlasting-flowers, and although small, very pretty.

84. HELICHRȲSŬM scorpĭŏĭdēs.

Labillard nov. holl. 2. 45. *t.* 191. *DC. prodr.* 6. 194.

This very beautiful New Holland plant has lately flowered in the garden of the Horticultural Society, where it had been sent by R. Mangles, Esq. who imported the seeds. It looks like a yellow everlasting-flower; the heads are large, very convex, bright yellow, almost metallic in their brilliancy; and when opened beneath a bright sun are as handsome as those of any composite flower I am acquainted with. It is a greenhouse herbaceous plant, propagated by cuttings.

85. BROMĒLĬĂ dīscŏlŏr.

B. *discolor;* foliis angustis acutis spinoso-serratis glabris, floribus arctissimè in strobilum sessilem lateralem glomeratis squamis rigidis pungentibus spinoso-serratis, calycibus ovariisque triangularibus glaberrimis.

Folia viridia, spinoso-serrata, glabra, 2-pedalia, basi dilatata; spinis nigrescentibus, æqualibus. *Strobili* sessiles, axillares, inter folia exteriora, ovata, rigida, 3 pollices longa; *squamis* ovato-oblongis, rigidis, arctissimè appressis, serratis, exterioribus brunneis, lucidis, subfurfuraceis acutis, interioribus apice viridibus acuminatissimis; intimis albis, carinatis, floribus brevioribus. *Flores* corymbose glomerati, fasciculati, bractearum exteriorum longitudine, quisque bracteolæ carinatæ axillaris. *Calyx* glaber, triqueter, decolor, sepalis carinatis, inæqualibus, margine membranaceis imbricatis. *Petala* 3, rosea, mox discolora, oblonga, erecta, convexa, unguiculata, basi in tubum longum connata, calyce longiora, inappendiculata. *Stamina* 6, erecta; 3 petalis opposita basi limbi inserta; 3 alterna basi dilatata utrinque dentata petala connectentia. *Antheræ* lineares, erectæ, sagittatæ, rectæ. *Ovarium* glabrum, omninò inferum, triquetrum, 3-loculare, polyspermum; ovulis uniseriatis; *stylus* 3-queter; *stigmata* 3, linearia, facie interiore glandulosa, erecta, non tortilia.

A rare South American stove plant, which flowered lately in the possession of Miss Garnier, of Wickham, near Southampton, who obtained it from South America. It has sessile spiny heads of dull pink flowers, which change to brown, and is not a handsome species. B. *longifolia* of Rudge seems its nearest ally. It will be seen by the foregoing description, that it differs in some respects from the panicled Bromelias, especially in the long tube of the corolla, and the long simple stigmas. There does not, however, appear to be any immediate necessity for creating a new genus for it.

86. DENDRŌBĬŪM formōsūm.

Wallich pl. as. rar. 1. *t.* 39.

This noble plant, whose large ivory-white flowers are unrivalled for beauty, in even the rich Flora of India, was sent from Chatsworth on the 12th of May: having been imported for the Duke of Devonshire, by Mr. Gibson, His Grace's collector in the East Indies. The flowers grow at the end of a leafy stem, and are between three and four inches in expansion, with every part of the purest and most transparent white, except one delicate lozenge-shaped, buff-coloured blotch in the centre of the lip. Neither the form nor the colour of this is correctly given in Dr. Wallich's work above quoted. It has been sometimes said that the Flora of South America is richer in beautiful Orchidaceous plants than that of India, and an appeal has been made to the Cattleyas, Epidendra, Oncidiums, and Maxillarias of the former country. But I know of no South American species so admirably formed and coloured as India can produce in the case of Dendrobia of various kinds, Saccolabiums, and species of the genera Phaius, Vanda, Cœlogyne, and Grammatophyllum. Of these Dendrobium formosum must stand among the foremost in point of beauty.

87. EPIDÉNDRŪM ionōsmūm.

E. *ionosmum;* pseudobulbis diphyllis scapo apice simplici racemoso brevioribus, sepalis petalisque coriaceis obovatis concavis obtusis subæqualibus, labelli trilobi liberi lobis lateralibus erectis oblongis columnam amplexantibus apice rotundatis undulatis coloratis striatis intermedio subrotundo emarginato crispo: lineis duabus elevatis prope basin unicâ angustiore apici propiore, columnâ anticè bicorni.

The Western world wants no violets where this charming plant is found, for it fills the air with a fragrance as delicate and delicious as that of our favourite wild-flower. The blossoms are rather large for an Epidendrum of this class, a dull reddish green, with the lip delicately streaked with deep lilac. Messrs. Loddiges imported it from Essequibo.

88. SACCOLĀBĬŪM gemmātūm.

S. *gemmàtum ;* foliis distichis semiteretibus canaliculatis subtortis apice inæqualiter tridentatis, spicâ ramosâ, floribus minutis carnosis, sepalis conniventibus ovatis obtusis lateralibus multò majoribus, petalis brevioribus subrotundis, labello carnoso ovato crystallino dorso tuberculato marginibus calcaris conici penduli dilatatis carnosis rotundatis, columnâ brevissimâ, apice antheræ hemisphæricæ reflexo.

This new species was discovered in 1837, on the Khoseea hills of India by Mr. Gibson, and was brought by him to the Duke of Devonshire, in whose collection at Chatsworth it flowered in May. The blossoms are the smallest of the genus, not being larger than a grain of mustard-seed, but the finest amethysts are not of a more brilliant purple, and the tips of the labellum and sepals are quite white.

89. EPIDÉNDRŪM vesicātūm.

E. *vesicatum ;* caule elongato, foliis inflatis equitantibus carinatis acutis glaucis, floribus terminalibus fasciculatis carnosis foliis vix longioribus, sepalis lineari-oblongis acutis petalis conformibus angustioribus, labello subrotundo cordato lineâ mediâ tuberculisque duobus basilaribus elevatis, collo ovarii medio vesicato.

A curious Brazilian species, for which I am indebted to Messrs. Loddiges. In habit it approaches E. equitans, but in the structure of both flowers and leaves it is widely different. The latter are covered with a glaucous bloom, imbricated, and more like inflated carinate bracts than true leaves. The flowers are greenish white, and offer some analogy with those of Physinga, but are in reality different from those of a genuine Epidendrum in nothing, except the neck of the ovary having an elevated semi-transparent blister near its middle. This blister is in fact the lower extremity of the cuniculus of the flower.

90. ODONTOGLŌSSŪM cordātūm.

O. *cordatum ;* scapo ascendente radicali, sepalis lineari-lanceolatis acuminatis petalis conformibus longioribus, labello cordato acuminato unguis lamellâ carnosâ apice bilobâ basi bicristatâ, columnâ pubescente clavatâ.

As yet only a small specimen of this has flowered with George Barker, Esq. of Birmingham, who imported it from

Mexico; but I have no doubt that it will become much larger, and more abundantly furnished with flowers. The latter are very handsome; having the sepals and petals richly blotched with brown, upon a yellowish green ground, while the lip is white, with the crest at the base purplish, and the apex spotted and blotched with rich brown. It is very different from any of the species previously described.

91. EPIDÉNDRŪM līvĭdūm.

E. *lividum;* pseudobulbis angustè ovalibus compressis diphyllis, foliis lineari-lanceolatis subundulatis obtusiusculis, scapo terminali paucifloro foliis breviore, ovario triquetro, sepalis erectis herbaceis linearibus mucronatis, petalis spathulatis obtusis æquilongis, labello libero lineari-oblongo obtuso crispo medio tomentoso serie triplici dentium elevatorum intermediâ majore, columnâ triquetrâ apice tricallosâ.

An obscure unattractive species, imported from Columbia by Messrs. Loddiges. The flowers are small, dull dingy purple, a little tessellated; their lip pale dirty yellow, with a few dull purple veins.

92. ONCĪDĬŪM confrăgōsūm.

O. *confragosum;* pseudobulbosum; scapo simplici glaucescente apice nutante, sepalis ovatis acuminatis undulatis lateralibus semiconnatis, petalis majoribus oblongis undulatis acutis, labelli lobis lateralibus nanis recurvis intermedio unguiculato altè bilobo subangulato reniformi: disco maximo digitato confragoso, columnæ alis rotundatis denticulatis.

A native of Mexico, whence it was imported by George Barker, Esq. The flowers are of just the same colour as O. stramineum, for which the species might be mistaken upon a casual examination; the colour is a very delicate straw, faintly spotted with pale purple.

93. MICRŌSTY̆LĬS excavātă.

M. *excavata;* floribus corymbosis, scapo hexagono, petalis filiformibus reflexis, labello ovato carnoso basi acutissimè sagittato medio utrinque altè excavato apice tridentato dente intermediâ majore.

A green-flowered Orchidaceous plant, resembling M. ophioglossoides, but with a corymbose inflorescence. It was imported by Mr. Barker from Mexico.

94. DENDRŌBĬŪM stūpōsūm.

D. *stuposum;* caule erecto tereti, foliis lineari-oblongis obliquè emarginatis, pedunculis bifloris, bractcis obtusis cucullatis, sepalis petalisque erectis lateralibus carinatis, labello oblongo cucullato obtuso sub apice calloso stuposo.

A native of India, whence it was obtained by his Grace the Duke of Devonshire; I have also received it from Messrs. Loddiges. It is an erect species, with the habit and general appearance of Dendrobium candidum; the flowers are of the same white colour, and but little smaller; the labellum, however, has a deep orange callus below its point, where it is thickly covered with a coarse tow-like hairiness.

95. MAXILLĀRĬĂ Boōthĭī.

M. *Boothii;* rhizomate repente, pseudobulbis ovalibus compressis diphyllis, foliis angustis obtusis, flore terminali intra bracteas carinatas submembranaceas distantes basi incluso, sepalis petalisque conformibus erectis angustis acutis, labello oblongo obtuso margine membranaceo.

" This plant was collected in Guatemala, by George Ure Skinner, Esq., and introduced, in 1835, by Capt. Sutton, who added it to Sir Charles Lemon's collection at Carclew, where it flowered in May 1838.

" *Stem* creeping, and imbricated with small, thin and dry, ovate, acuminate, brown scales, of which the two outer ones are the largest and embrace the bulb. *Pseudo-bulbs* one or two-leaved, ovate, oblong, a little compressed and tapering towards both ends. *Leaves* bright green, smooth and shining, from four to six inches long, and from three-eighths to half an inch broad, thin and rigid, oblong-lanceolate, with a bluntish point. *Scape* one-flowered, about two inches high, thin and compressed, and having two large, thin, sheathing, acuminate bractes; it issues from the centre of an upright, keel-shaped, narrow leaf, which is imbricated at the base, and forms a sort of sheath that protects the flower until it is ready to expand. *Pedicels,* an inch long, dull green, marked with brownish spots. *Sepals* spreading, lanceolate, acute, pale greenish yellow. *Petals* of the same colour as the sepals, but conniving and about a third shorter, with a blunter point. *Labellum,* the length of the petals, slightly recurved, rounded at the point, and keeled below, with the outer edge very thin and more delicate than the rest. Towards the base are two fleshy processes of a deep yellow. *Column* about half as long as the petals, rounded above, and having the edge, immediately below the anthers, deep brown."

The species is new, and I have named it after Mr. Booth, to whom I am indebted for my knowledge of it.

96. COMMELĪNĂ orchĭoīdēs. *Booth in litt.*

C. *orchioides;* foliis oblongis glaberrimis superioribus angustioribus, spathâ maximâ cucullatâ cernuâ solitariâ, staminibus sterilibus apice glandulosis.

" Roots of this plant, with many others, and a large collection of curious seeds, were received in April 1838, by Sir Charles Lemon, Bart. M.P. from Mr. John Rule, the zealous and active superintendant of the Real del Monte Mines, in Mexico. It flowered in the stove at Carclew, in May; and is to be regarded more as a subject for the Botanist, than for those who are fond of showy flowers—to the latter it is valueless—but to the former it is not devoid of interest.

" The whole plant does not exceed six inches in height. The *leaves* grow nearly erect, and are from three to five inches in length, and from half an inch to an inch in breadth, sheathing at the base and surrounding the stem; oblong lanceolate, acute, smooth, and shining, with a broad, fleshy, pale green midrib. *Peduncle* erect and round, nearly the length of the leaves, pale green, and slightly pubescent, together with the *involucre*, which is of one leaf, thin and compressed, keel-shaped, ovate, acuminate, splitting on the upper side, which is tinged with brown at the edge. The *flowers* are numerous, of a bright blue colour, but open only one at a time; they expand in the morning, attain perfection about noon, if the sun is not very strong, and in a few hours afterwards close up and decay. *Pedicels* short and round, pale green; before the flower is ready to open they are incumbent on one another, and curved. *Sepals* three, roundish ovate, very thin, and of a dull, pale green, tinged with brownish purple; the upper is smaller than the other two, and more acute at the point. *Petals* three, roundish, concave, with a claw at the base. *Filaments* six, of which three are nearly as long as the petals, and have perfect anthers; the other three are shorter, and instead of anthers have each five or six yellow slender thread-like glands, with globular heads. *Style* the length of the stamens, deep blue, and curved at the point. When the anthers have burst, they gradually approach the style, which rolls up with them as soon as they come in contact, and is followed by the petals slowly curling at the edges, and collapsing around the whole. *Ovarium* roundish oblong, apparently three-celled."

The foregoing note has been sent up from Carclew to Sir C. Lemon. I do not find any described species with which the plant can be identified.

97. FŪCHSĬĂ cylindrācĕă.

F. *cylindracea;* foliis obovatis obsoletè dentatis glabris, petiolis levissimè pubescentibus, pedicellis capillaribus solitariis unifloris, calycibus cylindraceis 4-dentatis, petalis planis bilobis calycis laciniis brevioribus, antheris biseriatis sessilibus inclusis.

A pretty new species of Fuchsia, raised from Mexican seeds presented to the Horticultural Society by George Barker, Esq. of Birmingham. It belongs to the same set as F. microphylla and thymifolia, and has cylindrical deep scarlet flowers, about half an inch long; on very slender stalks, an inch and a half in length.

98. BRAVŌĂ geminiflōră.

Llexarç. et Llalav. nov. veg. descr. 1. *p.* 6.

"For the introduction of this handsome plant we are indebted to Mr. John Rule, Superintendant of the Real del Monte Mines in Mexico, from whom it was received by Sir Charles Lemon, Bart. M.P. in March 1838, and flowered in the stove at Carclew, a few weeks after its arrival.

"*Root* a small fleshy, roundish-oblong tuber, perennial. *Leaves* 3-5 or more, nearly erect, linear-lanceolate, acute, not spreading flat, but somewhat revolute at the margin; from six to eight inches long; and about one-fourth of an inch broad, quite smooth, of a bright shining green, spotted with pink at the base. *Stem* jointed, erect, round and hard, issuing from the centre of the leaves, and attaining to from nine inches to a foot in height. Its colour, as well as that of the small narrow lanceolate leaf, which embraces each joint, is a pale glaucous green. *Bracteas* 3; the outer one coloured, and much larger than the two on either side of it, which are very small and acute, and placed at the base of each pedicel. *Pedicels* short and round. *Flowers* 8 or 10, tubular, incurved, and drooping invariably in pairs, of a rich, deep-reddish orange, tinged with darker red at the edge, which is five-toothed; they only remain a few days in perfection, at which time they are upwards of an inch in length, and a quarter of an inch in breadth at the mouth of the tube, but afterwards gradually contract and dry up. *Filaments* six, all of the same length, very slender, and rather shorter than the tube, to which they are attached near the base. *Anthers* large, oblong, deep yellow. *Style* a little longer than the filaments, pale yellow, with a round entire *stigma*. *Ovarium* three-celled, many seeded (?), containing two rows of seeds in each cell.

"The plant, from which the above description was made, was cultivated in the stove, but I have since found that others grown in a warm greenhouse succeeded equally well, and had their flowers quite as high-coloured. They seem to thrive in a light rich loam, and not too much water. I suspect it will ripen seeds, and by them be easily increased." *W. B. Booth.*

According to Llave and Llexarça the species is a native of the mountains of Micciacan, and near Valladolid in Mexico. It is a beautiful quasi-bulbous plant.

99. BATĀTĀS bonarĭēnsĭs.

B. *bonariensis;* foliis septenatis glabris laciniis lanceolatis, pedunculis unifloris, sepalis oblongis rotundatis exterioribus brevioribus.

A handsome twining Convolvulaceous plant, with large purple flowers, imported from Buenos Ayres by Messrs. Lowe & Co. of Clapton. It has handsome purple flowers, and appears as if intermediate between Ipomæa Horsfalliæ and insignis. It requires only the protection of a greenhouse.

100. ORNITHŌGĂLŪM geminiflōrūm.

Herbert Mss.

O. *geminiflorum;* foliis tribus acuminatis canaliculatis glabris lætè viridibus semunciam latis sæpè revolutis, pedunculis geminatis flore altero seriore, sepalis paulò angustioribus, filamentis planis subulatis limbo perianthii brevioribus, ovario viridi, stylo brevi, stigmate minuto.

A plant dug up near Lima by mistake for Pyrolirion aureum, and sent by John Maclean, Esq. to the Hon. and Rev. W. Herbert. It is a small white-flowered species resembling O. chloroleucum, from which it differs in the flowers being in pairs, and opening one long before the other, instead of growing singly.

101. LUĬSĬĂ alpīnă.

L. *alpina;* foliis distichis coriaceis canaliculatis obliquè bilobis mucrone interjecto, sepalis oblongis obtusis lateralibus carinatis labello suppositis, petalis paulò angustioribus, labello oblongo concavo inappendiculato utrinque versus basin emarginato obsolete bilobo sub apice gibboso.

A very distinct species, with coriaceous distichous leaves, resembling those of an Aerides. Its sepals and petals are light green; the lip is strongly streaked internally with deep purple. It was collected for his Grace the Duke of Devonshire, by Mr. Gibson, at Nungklow, on the Khoseea hills, at an elevation of 4,000 feet above the sea. Snow frequently falls at this place in the cold season.

102. BOLBOPHȲLLŪM umbellātūm.

Lindl. Gen. et Sp. Orch. 56.

This curious plant has lately flowered at Chatsworth, having been sent to the Duke of Devonshire from the Botanical Garden at Calcutta. Its flowers are a dull dirty yellow, spotted with brown.

103. SACCOLĂBĬŪM densiflōrūm.

Lindl. Gen. et Sp. Orch. 220.

Among some Orchidaceæ, collected in Manilla by Mr. Cuming, this plant has made its appearance, having flowered with Messrs. Loddiges. It has small, pale, dull brownish yellow flowers, of a very fleshy consistence. The specimen that flowered was a small one; the Penang specimens brought home by Dr. Wallich were nearly two feet high.

104. CALYSTĔGĬĂ sēpĭūm.

Brown Prodr. fl. nov. Holl. p. 339.

It is not a little curious that a plant so much like our common large European Bindweed should be found all over the southern parts of New Holland, where it can scarcely be supposed to have been introduced. I however quite agree with Dr. Brown that the Australian plant is specifically identical with that of Europe. It has lately been raised in the garden of the Horticultural Society, from seeds collected by Major Mitchell, the enterprizing Surveyor-General of Australia; and it does not present any valid marks of distinction from C. sepium. The flowers are pink and rather larger, and the posterior angles of the leaves more rounded, and less angular than usual, but I observe no further differences.

105. RŒ̄PĔRĂ aurantĭăcă.

Lindley in Major Mitchell's Australia, ined.

A curious species of this small and well marked genus; differing from *R. fabagifolia* in its linear leaflets, which are not more than twice the length of the petiole, and in the small size of the flowers, which are placed upon long erect solitary peduncles. The petals are orange-yellow and acute, and the fruit has semiorbicular wings. It was found by Major Mitchell in his latest journey into the interior of New Holland, and was raised in the garden of the Horticultural Society, where it flowers in the open border in July, and will probably continue to do so all through the autumn.

106. PSORĂLĔĂ cinĕrĕă.

Lindley in Major Mitchell's Australia.

An erect apparently annual plant, with grey toothed foliage, and small purple flowers in long stalked erect racemes. It is of no beauty, and was raised in the garden of the Horticultural Society from seeds procured by Major Mitchell in one of his expeditions into the interior of New Holland.

107. PĪCRĬS barbarōrūm.

P. barbarorum ; sparsè hispida, foliis ciliatis supra nitidis scabriusculis radicalibus spathulato-lanceolatis subdentatis caulinis oblongis sessilibus amplexicaulibus recurvis dentatis integrisque, caule stricto ramoso, involucri foliolis lineari-lanceolatis acutis apice vel secus dorsum serie simplici pilorum longorum reflexorum appendiculatis, achæniis badiis longè rostratis transversè rugosissimis disci sterilibus.

This remarkable, but not beautiful, plant was found by Major Mitchell in his latest journey into the interior of Australia, and was raised from that officer's seeds in the garden of the Horticultural Society. It forms one of the very few Cichoraceous plants known in New Holland, and, along with two other species of the same genus, one of which is noticed by M. De Candolle, gives to Australia another of the very few features which that country possesses in common with Europe. It is an erect, branched plant, nearly 3 feet high, and is what is mentioned by Major Mitchell at p. 148 of the second volume of his work on Australia, as having been found by him parboiled, as a part of the food of the natives. It seems to be only an annual, and is about as fit for food as a sow-thistle. The other species to which allusion has just been made is a native of Van Diemen's Land, whence I have received specimens from my invaluable correspondent, Ronald Gunn, Esq. (No. 115). It is like *P. hieracioides* in appearance, but has longer narrower leaves, larger flower-heads, and an exceedingly rough surface, on which account it may be called

108. PĪCRĬS aspērrĭmă.

P. *asperrima ;* pilis duris brevibus rigidis glochidatis exasperata, foliis inferioribus lanceolatis dentatis in petiolum angustatis superioribus linearibus longissimis margine scaberrimis, caule laxè paniculato pedunculis subebracteatis scaberrimis monocephalis elongatis, involucri foliolis lineari-lanceolatis dorso spinuloso-crinitis, achæniis . . . .

109. PIMELĒĂ crinītă.

P. *crinita ;* foliis oppositis linearibus suprà glabris subtùs cauleque albo-villosis summis angustioribus numerosis subverticillatis imbricatis involucrantibus florum longitudine, capitulis densis terminalibus multifloris, staminibus styloque longè exsertis, calycis tubo villoso limbo supra glabro.

A very pretty new species of this genus, with snow-white flowers, smelling slightly of heliotrope (?). It forms a small shaggy greenhouse bush, native of Swan River. A specimen of it has recently flowered in the rich collection of Robert Mangles, Esq., of Sunning Hill.

110. NICOTIĀNĂ rotundifŏlĭă.

N. *rotundifolia ;* undique pilis patentibus villosa, caule paniculato, foliis planis in petiolum brevum decurrentibus inferioribus ovato-oblongis superioribus subrotundis, corollæ tubo cylindraceo calyce duplò longiore limbo plano subæquali laciniis subrotundis emarginatis, filamentis 4 longioribus adnatis, capsulâ ovali biloculari calycis longitudine.

This new tobacco inhabits the neighbourhood of Swan River, whence seeds were received by Robert Mangles, Esq. of Sunning Hill. It has the habit of N. suaveolens, but the flowers are smaller, and the leaves more like those of Petunia nyctaginiflora. Like the former of these species the flowers are white, and give out rather a pleasant perfume in the evening. It is a hardy annual.

111. THYSANŌTŬS intricātŭs.

T. *intricatus ;* ramis debilibus filiformibus intricatis, foliis squamæformibus, floribus umbellatim paniculatis hexandris, staminibus styloque decurvis.

A curious new species of this pretty genus, obtained from Swan River by Robert Mangles, Esq., of Sunning Hill. A figure of it will soon appear in this work.

112. ECHEVĒRĬĂ secūndă. *Booth in litt.*

E. *secunda ;* foliis rosulato-confertis cuneatis mucronatis pinguibus glaucis, racemo secundo recurvo, floribus longè pedunculatis.

“ Plants of this curious succulent were received by Sir Charles Lemon, Bart., M.P., in 1837, and again in 1838, from Mr. John Rule, Superintendant of the Real del Monte

Mines in Mexico, of which country it is believed to be a native. Treated like other succulents, in a pot of coarse gravelly soil, and subjected to a high temperature, with very little water, it has been found to thrive very well, and flowered in the stove at Carclew in June, 1838.

" *Stem* very short, creeping. *Leaves* numerous, concave, spathulate, and spreading, sessile, thick and fleshy, crowded, and loosely arranged round the stem as a common axis. With the exception of a few in the centre, which are much smaller than the others, the whole are similar in size and form, varying from two to two and a half inches in length, and rather more than an inch in breadth, at the widest part near the apex, from which they gradually taper towards the base, and end at the point in a small mucro. Their colour is a glaucescent green, covered with a fine bloom, which easily rubs off on being touched. The outer edges and mucro have a brownish tinge. *Flower stem* round, about a foot high, glaucous pink, rising from one side of the mass of leaves, and terminating in a unilateral, deflexed, raceme, of about ten or a dozen flowers. *Bracteas* small and fleshy, ovate-acuminate, tinged with pink at the point. *Pedicels* of the earlier flowers about an inch long, diminishing gradually both in size and length towards the extremity of the raceme. Taking the point where they join the stem as a centre, it will be found that each pedicel forms, as near as possible, an angle of about 33° with the stem. *Calyx* 5-leaved, rotate, spreading, the segments thick and fleshy, lanceolate, acute. *Tube* upwards of half an inch in length, gibbous at the base, which is a bright yellowish red, narrowing upwards to the mouth, which is acutely five-toothed, a little recurved, and of a deep yellow. *Filaments* 10, five attached half way down the petals, and the other five at the base opposite each division of the calyx, but all of the same length. *Anthers* erect, deep yellow. *Styles* 5, short, and compressed together, pale, shining green. *Ovarium* five-celled, with numerous seeds in each, and having a small fleshy process at the base, intermediate with the segments of the calyx." *Booth in litt.*

For the above account of this pretty plant I am indebted to Mr. Booth. The species is nearest *E. cæspitosa*, from which it differs in having a one-sided gyrate raceme, and long-stalked scarlet, not yellow, flowers.

113. PAXTŌNĬĂ rŏsĕă.

One of the most curious plants sent from Manilla by Mr. Cuming is this, which flowered in June in the collection of Messrs. Loddiges, and which will be shortly figured in this work. In the mean while the following short character will enable Botanists to identify it, and will secure the name to Mr. Paxton, whose claim to be permanently associated with Orchidaceæ will be readily admitted by all who know anything of the admirable cultivation of such plants at Chatsworth.

Paxtonia (Nat. ord. *Orchidaceæ* §. *Malaxideæ.*) *Perianthium* 6-phyllum, petaloideum, patens, æquale. *Columna* libera, clavata, semiteres. *Pollinia* 8, angusta, clavata. *Stigma* verticale.—The leaves are long, narrow, and slightly plaited, and proceed from an oblong pseudo-bulb, which is marked with circular scars indicating whence they fell. The flowers are a purplish-lilac, rather larger than a shilling, and grow upon a stem about a foot high, in a somewhat corymbose raceme. They look like those of a *Thelymitra*, but the structure of their column is entirely different.

114. CATASĒTŪM atrātūm.

C. *atratum ;* racemo decurvo, sepalis petalisque patentibus ovatis acutis, labello carnoso cucullato margine tenui pectinato apice rotundato reflexo crasso denticulato.

A curious dark-flowered species, obtained from Brazil by Messrs. Loddiges. It will soon be figured in this work.

115. ONCĪDĬŪM pulvinātūm.

O. *pulvinatum ;* paniculâ ramosissimâ divaricatâ, sepalis obovatis lateralibus liberis, petalis conformibus acutis, labelli lobis subæqualibus intermedio bilobo undulato lateralibus crenatis rotundatis crispis, disco pulvinato villosissimo, columnæ alis rotundatis.

A very fine plant, resembling *O. divaricatum*, with a panicle eight or nine feet long, imported from Brazil by Richard Harrison, Esq., of Aighburgh, to whom a medal was awarded for his exhibition of it at a recent meeting of the Horticultural Society of London. A figure will appear in this work.

116. MAXILLĀRĬĂ vitellīnă.

M. *vitellina:* pseudobulbis ovatis obtusè angulatis monophyllis, foliis lanceolatis in petiolum canaliculatum angustatis, racemo cernuo radicali foliorum longitudine, labelli cuneati trilobi lobis lateralibus acutis anticè crenulatis intermedio bilobo rotundato cordato crenulato, tuberculo disci trilobo obtusissimo, ungue pubescente.

I am unwilling to delay noticing this pretty yellow Maxillaria till a figure can be published. It is a native of Brazil, whence it was imported by Messrs. Loddiges, and is remarkable for having a rich deep brown spot in the middle of its yellow lip.

117. POLY̆GŎNŪM amplexicāulĕ.

Don prodr. fl. nep. 70.

This charming herbaceous plant, inhabiting the mountains in the North of India, with long graceful racemes of the most brilliant ruby-coloured flowers, has lately made its appearance among some plants obtained from seeds sent from India by Dr. Hugh Falconer, of the Botanic Garden, Saharunpur.

It flowers in July and August, and will soon be figured in this work.

118. AMPELY̆GŎNŪM chinēnsĕ.

Under the name of *Polygonum Chinense, auriculatum,* and various others, a plant is found in the herbaria of Indian Botanists, which is sometimes also referred to the genus *Coccoloba,* but which Professor Meisner, in his revision of Polygona, in Dr. Wallich's Plantæ Asiaticæ rariores, unhesitatingly included in that genus. This plant has lately flowered in the garden of the Horticultural Society, where it has been raised from seed received from Dr. Falconer, of Saharunpur. It forms a spreading herbaceous plant, from 1½ to 2 feet high, with ovate-lanceolate, acuminate, stalked leaves, coarsely bearded along the midrib on the underside, and with small heads of yellowish-white fleshy flowers, which are succeeded by a black succulent fruit. This circumstance, which is so essentially at variance with the character of Polygonum, accounts for the plant having been occasionally referred to Coccoloba. It however cannot be placed in that genus, because its seeds are not lobed, and the embryo is placed on one side of the albumen.

For these reasons I propose the establishment of a new genus, to which a name indicating its grape-like fruit has been assigned. That of *Cephalophilon*, by which the section of Polygonum including this plant has been distinguished by Meisner, cannot be adopted, because it is not known that the other species included in the section have also baccate fruit. The genus Ampelygonum will not have long to wait for an augmentation of its species, part of which will be found in *Polygonum* and part in *Coccoloba.* In the meanwhile the following may be taken as its generic character.

AMPELYGONUM.

Calyx 5-fidus, imbricatus, in fructu baccatus. Stamina 8 serie duplici inserta; interiora sepalis opposita et in annulum brevem perigynum basibus suis coalita; exteriora sepalis alterna, libera. Stigmata 3, capitata. Achænium triquetrum, calyce baccato inclusum. Embryo lateralis.

1. A. *chinense*=Polygonum chinense, *Meisner in Wall. Pl. As. rar.*

This species derives additional interest from being one of those from which Indigo of fine quality is obtained. *Polygonum tinctorium*, also in our gardens, is at this time extensively cultivated in Belgium as a domestic substitute for the tropical Indigo, and is said to produce the dye in great abundance and of the finest quality.

119. SPIRĀNTHĒS diurĕtĭcă.

This little plant, inhabiting the mountainous parts of Chile, where it is common, has lately been received from Valparaiso by Capt. James Mangles, R.N. Its flowers are green and white, unattractive to the careless observer, but studded in the most beautiful manner with crystalline points, particularly at the apex of the lip. It is a greenhouse Orchidaceous plant, and flowers in August.

120. PODŎLĔPĬS contōrtă.

P. *contorta ;* glabriuscula, erecta, foliis oblongis carnosis sessilibus obsoletè triplinerviis, pedunculis foliis longioribus parcè squamatis monocephalis, capitulis primùm pendulis sub anthesi erectis, involucri foliolis cordatis acuminatis glabris planis exterioribus sessilibus intermediis stipitatis interioribus lineari-lanceolatis, ligulis trifidis, radio dextrorsum contorto.

A native of Van Diemen's Land, whence seeds of it were sent to the Horticultural Society by Mr. J. Bunce. It is a pretty perennial, with dark green fleshy leaves, a flower-stem from 6 to 9 inches high, and solitary golden yellow flower heads. The latter are the size and form of the common *Amberboa moschata*, or Yellow Sultan, and are remarkable for the florets of the ray having all a distinct twist to the left, so as to give the flower-head the appearance of what is called a Catharine-wheel. The species will perhaps be hardy; at least it will only require moderate protection in winter. It is very different from the old *Podolepis acuminata*, figured in the Botanical Magazine, t. 956, under the name of *Scalia jaceoides*, in its leaves not being sagittate, and in its much dwarfer habit. As however, M. DeCandolle takes no notice of the remarkable sagittate leaves of *P. acuminata*, it must be doubted whether he had that plant, or the present one, before him, when he framed his definition for the Prodromus.

121. BĔRBĒRĬS tenuifŏlĭă.

B. *tenuifolia ;* foliis pinnatis ternatisque, foliolis ovato-oblongis acutis tenuibus planis integerrimis.

Although I have not seen any flowers of this plant, it is so well marked a species, that I venture to publish it. Its seeds were sent by Mr. Hartweg to the Horticultural Society from the neighbourhood of Vera Cruz, where it was found growing at a place called Zaquapam, near the rancho of Mr. Lavater, in company with a Helonias resembling *H. officinalis*. It is an evergreen bush, with thin, smooth, rather glaucous, pinnated leaves, entirely free from all spinosity. As an addition to the beautiful section of ash-leaved Berberries it must be considered a very interesting plant, but it cannot be expected to prove more hardy than *B. fascicularis*, if so much so.

122. SĒDŪM mĭsĕrūm.

S. *miserum;* caulibus procumbentibus, foliis inferioribus sparsis teretibus depressis superioribus ovato-linearibus semicylindraceis aggregatis, floribus sessilibus solitariis terminalibus, sepalis foliaceis petalis ovatis cucullatis apiculatis aspero-carinatis longioribus, staminibus petalinis brevioribus, squamis cuneatis retusis.

An inconspicuous succulent annual, raised from Mexican seeds, imported by George Frederick Dickson, Esq. It grows about nine inches high, or rather longer, for it falls prostrate if not supported; its flowers are green, and almost hidden among the fleshy leafy sepals. It multiplies itself by seeds, and by fragments of its brittle branches, which drop off the parent, and strike root into the ground.

123. CARPĒSĬŪM pubēscēns.

Wall. Cat. n. 3199. *DC. prodr. v.* 281.

This plant has lately flowered in the garden of the Horticultural Society, where it was raised from seeds received from Dr. Falconer. It is certainly a mere variety of *Carpesium cernuum,* and hardly so much. Nor does there appear any good character to distinguish from our European plant the *C. nepalense* of Lessing. The copious hairiness of that supposed species is nearly equalled by the plant now before me; and the size of the capitula, described by De Candolle as being four lines broad, is of no importance; for on the same living cultivated specimen they vary from five to twelve lines in diameter, according to their age.

124. ONCĪDĬŪM hĭāns.

O. *hians;* sepalis petalisque æqualibus ovalibus obtusis leviter concavis, labello angusto auriculato medio contracto apice bilobo, callo disci bilobo utrinque dentato carnoso papilloso erecto columnâ parallelo eique longitudine æquali, alis columnæ carnosis acutis vix falcatis.

I have only seen flowers of this little species, which comes near to O. carinatum. Messrs. Rollissons received it from the vicinity of the gold mines in Brazil. It has small yellow and brown flowers, with an extraordinary appendage to the lip, erect, white, fleshy, as long as the column, parallel with that organ, and resembling the four fingers of the hand a little hollowed out and closed together. This is quite a new modification of structure.

125. VĀNDĂ lamellātă.

V. *lamellata;* foliis distichis coriaceis obliquè et acutè bidentatis, spicâ multiflorâ, sepalis petalisque obovatis obtusis undulatis inferioribus subincurvis majoribus, labello basi mammoso, limbo obcuneato retuso auriculato bilamellato pone apicem bituberculato.

A fine species of epiphytal Orchidaceæ, received by Messrs. Loddiges from Manilla. It has pale yellow flowers stained with red, and as large as those of Vanda Roxburghi. The lip with its two red elevated plates, and a pair of red tubercles just below the apex, distinguishes this with certainty. It has something the habit of *Vanda spathulata*, a common and handsome East Indian species which no one seems yet to have imported.

126. ENTELĒĂ palmātă.

E. *palmata;* foliis palmatis cordatis cum caule tomentosis: laciniis oblongo-rhombeis crenatis obtusis subtrilobis, umbellis pedunculatis foliis brevioribus, petalis lineari-oblongis obtusis.

A greenhouse shrub, occasionally occurring in collections under the name of *Sparmannia palmata*, and which has no doubt been so denominated in consequence of its resemblance in habit to the old *Sparmannia africana*. Its native country is unknown; it grows about three or four feet high, and bears umbels of rather small white flowers. The following technical description of it will enable Botanists to register the species.

Frutex tomento brevi stellari viridi undique obductus. *Folia* petiolata, cordata, palmata, 3 p. longa, crenata, laciniis inæqualiter lobatis, subtrilobis. *Stipulæ* subulatæ, acutissimæ, utrinque binæ! vel ternæ! et tunc inter se inæquales. *Pedunculi* petiolis longiores, apice umbellam sub-12-floram gerentes, bracteolis 4-5 stipulæ-formibus deciduis circumdatam. *Pedicelli* supra medium articulati. *Sepala* 4, alba, erecta, linearia, acuta, concava, extus stellatìm tomentosa. *Petala* totidem, paulò latiora et breviora, obtusa, glabra. *Stamina* numerosa, hypogyna, flava, omnia fertilia; filamentis exterioribus dorso varicosis, interioribus lævibus; antheris parvis bilocularibus. *Ovarium* parvum, ovatum, hispidum, 4-loculare; loculis serie duplici polyspermis; *stylus* filiformis; *stigma* obsoletissimè 4-lobum.

127. CYNOGLŌSSŪM grandiflōrūm.

Bentham in Royle's Illustr. p. 305.

A beautiful herbaceous plant, first found by Dr. Royle in Cashmere, and in various places in the north of India. It has been recently raised from seeds sent to this country from Bombay by John Nimmo, Esq. It grows nearly three feet high, has a strong, purple, branching, erect stem, the ramifications of which are simple or racemose, and terminated by racemes of bright blue flowers, whose corolla is bordered with white.

128. HYDROTǢNĬĂ Meleāgrĭs.

Among a collection of plants formed on mountain pastures near the Real del Monte mines in Mexico, this curious genus was received by John Rogers, Esq. Jun. of Seven Oaks, to whom I am indebted for a sketch, with various memoranda, and a flower preserved in spirits. It looks something like a *Tigridia* bearing the flower of a *Fritillary*. The stem is about 18 inches high, and bears a single, straight-veined, plaited leaf. The spathe is leafy, convolute, 2½ inches long, and contains from 4 to 5 flowers which open in succession; each is in colour and form very like a *Fritillaria pyrenaica*, but smaller; the petals, which are slightly unguiculate, and marked with a few broken bands of crimson, have at their base a triangular glandular bar, the point of which is directed upwards, sécreting honey, and when fresh slightly excavated into hollows resembling a row of pearls placed on a pale yellow ground. The name of the genus refers to this circumstance of a band secreting fluid. The stigmas appear to be six, alternating with the anthers in pairs; but in reality there are three styles, each diverging near the apex into two arms, with an intermediate mucro in their sinus, opposite the back of the anthers ; each arm is convolute, has a single tooth on the inner margin, and bears the stigma in the form of glandular hairs just within its point. The flowers are exceedingly fugitive, and so delicate and frail in texture when newly blown as hardly to bear handling ; but plunged in spirits of wine they become tough and like fine parchment. By this process the anatomical structure of the petals of this plant is remarkably well preserved, and exhibits some peculiarities which deserve to be noticed, so far as the cellular tissue is concerned. The parenchyma consists of ordinary dodecaedral compressed cellules, each containing a transparent nucleus equal to about one-third of its own diameter; these cellules connect the veins, in which the spiral vessels, and the young woody tissue encasing them, are beautifully visible. Towards the margin of the petals the nuclei of the cellules become much larger, more solid, and are evidently composed of mucilage containing minute spherules. The triangular bar near the base of the petals, which Mr. Rogers describes as secreting honey, is composed precisely of the same kind of tissue as the transparent part of those organs, but the layers of cellules are more numerous, and the latter contain a granular matter composed of minute spherules collected together into a nucleus, which nearly fills the cavity of each cellule. The granular state of the nucleus and its great developement do not however abruptly commence and terminate with the apparent limits of the bar ; but gradually diminish until they alter into the small transparent nuclei common to the rest of this tissue. The whole is included in a Henslovian membrane of most unusual toughness, which may be readily torn off the interjacent parenchyma. This toughness of a part commonly too delicate to be detected at all is possibly produced by the action of the spirits of wine upon the vegetable tissue. I am not aware that it has ever before been found in the floral envelopes.

The tissue of the bar, above described, is singularly like that of the small hard brown kernels in the pitchers of Nepenthes, of which I was the first to give an account in the Ladies' Botany, *vol.* 2. *p.* 198. and which was subsequently described in Professor Meyen's valuable memoir upon the secreting organs of plants ; only in this instance the granular tissue is entirely covered by the cuticle, and is diffused through the whole substance of the petal, and not collected into kernels placed below openings in the cuticle. The office of this kind of tissue is apparently to secrete the honey that abounds in the flowers of this plant; in which respect it also corresponds with the probable functions of the brown glandular kernels of Nepenthes, by which it is suggested, in the work above quoted, that the water contained in the pitchers of the Pitcher Plant is secreted.

Hydrotænia differs from Sisyrinchium in having the anthers opposite the primary lobes of the style; from Tigridia and all its allied genera, in having a campanulate flower, equal sepals and petals, and a secreting zone upon the latter near their base. The following is a technical description of the genus.

HYDROTÆNIA (*Iridaceæ*). Perigonium campanulatum, subisomerum; petalis unguiculatis supra unguem zonâ triangulari mellifluâ fasciatis. Stamina 3, monadelpha, sepalis opposita; antheræ sessiles, basi-fixæ, loculis connectivum marginantibus. Ovarium inferum, apice liberum conicum; ovula plurima angulo centrali loculorum inserta; stylus filiformis apice trifidus: laciniis 3-partitis linearibus convolutis: intermediâ nanâ antheris oppositâ, lateralibus geminatim inter antheras projicientibus.

Sp. 1. *Hydrotænia Meleagris*——Mexico; In pascuis alpinis prope aurofodinas Regiomontanas.

Caulis sesquipedalis, monophyllus. Folium ensiforme, plicatum, unciam latum, spathâ paulo brevius. Spatha cucullata, foliacea, 4-5-flora. Flores fugacissimi, a pedunculo gracillimo penduli. Perigonium campanulatum, $1\frac{1}{4}$ pollicem altum, extùs fusco purpureum, intùs pallidum; fasciis quibusdam interruptis sanguineis in petalis. Sepala cuneata, mucrone debili aristata, concolora. Petala æquilonga, pariter aristata, unguiculata, cordata, zonâ supra unguem luteâ melliferâ triangulari, cui tela cellulosa grumosa, compacta et glandulosa est. Stamina in tubum longum connata; antheræ sessiles, patentes, sepalis oppositæ; connectivo carnoso loculis polliniferis circumdato. Stylus filiformis, 3-fidus; brachiis antheris oppositis, linearibus, convolutis 3-partitis: laciniâ intermediâ nanâ, lateralibus margine interiore unidentatis inter apices papillosis. Ovarium 3-loculare, apice liberum, conicum; ovulis plurimis, ascendentibus.

129. MORRĒNĬĂ odorātă.

This plant has been raised in the garden of the Horticultural Society, from seeds obtained from Buenos Ayres by the Hon. W. F. Strangways, and flowers in August and September in the greenhouse. In habit it is similar to *Oxypetalum Banksii*, and like that species twines round sticks or trellis with some rapidity to the length of a few feet. In the Journal of Botany it is said to inhabit "old dykes about Buenos Ayres, and to have green flowers which are remarkably fragrant, particularly in damp evenings." They have indeed much the smell of Pergularia odoratissima, and almost their colour, except that the centre is occupied by a white angular coronet. They are about an inch in diameter. What makes this rare plant a most interesting species is the distinctness with which it exhibits the curious formation of pollen tubes, and the singular phænomena connected with fertilization, in Asclepiadaceous plants. Before the flowers expand the hollow formed by the closed up coronet is dry, and all the parts are in the ordinary condition; but with the expansion of the corolla appears an abundant secretion of watery matter, which bathes and lubricates all the parts connected with the column. At the same time the surface of the sides of the column, over the cells of the anthers, becomes gradually tumid; shortly afterwards a substance like tow is seen protruding from beneath the membranous apex of the anthers; it increases in quantity, covers over the apex of the stigma, and eventually makes that organ, which in reality is quite smooth, appear as if woolly. This tow-like matter consists entirely of pollen tubes, which quit the pollen-bags on their outer edge near their point of attachment to the arms of the gland, distend the valves of the anther, and follow the course of the membranous apex of that organ, which directs them with unerring certainty to the stigma. I am not aware that this modification of the plan of fertilization in Asclepiadaceæ has been before noticed; it has been stated, in such cases as have been previously examined, that, in this order, the pollen tubes do not direct themselves to the apparent stigma, but to the lower and under part of its discoid head; here however they manifestly pass upwards in the direction of that part through which fertilization occurs in ordinary plants.

If we take *Cynanchum vincetoxicum* as the type of the genus *Cynanchum*, as seems most convenient, it will not be possible to allow this remarkable plant to form a part of it. Its convex two-lobed stigma is extremely different from the flat or concave angular one of Cynanchum; and its tubular coronet, which converges in such a way as completely to cover over the apparatus for fertilization, an arrangement which is probably connected with the peculiar manner in which that important function is in this plant performed, is again extremely different from the open five-lobed cup of the genus limited as I have proposed. To the present very curious genus I beg to affix the name of Professor Charles Morren of Liége, the discoverer of the manner of cultivating Vanilla, so as to make it produce with certainty a crop of its aromatic fruits, and one of the most distinguished Vegetable anatomists of the present day.

MORRENIA. Sepala 5, linearia, inter petala erecta. Corolla rotata; laciniis patentissimis acuminatis. Corona tubulosa, quinquangularis, 5-loba; lobis valvatim conniventibus et genitalia omninò occludentibus. Stamina lobis coronæ opposita. Antheræ laminâ membranaceâ stigmati appressâ apiculatæ. Pollinia pendula, margine superiore dehiscentia. Ovaria sphæroidea, ventricosa. Stigma convexum, apiculatum, bilobum.

1. *Morrenia odorata*———Cynanchum odoratum. *Hooker & Arnott in Journal of Botany, vol.* 1. *p.* 294.

130. CYPĒLLĂ plūmbĕă.

C. *plumbea ;* caule simplici glauco, sepalis obovato-cuneatis, petalis basi cuneatis apice dilatatis apiculatis medio pubescentibus, stylorum laciniis lateralibus acinaciformibus complicatis in cristam triplicem reflexis : intermediis transversis bicornibus.

Caulis 3-4-pedalis, glaucus, teres, pennæ cygneæ crassitudine. Folia distantia, basi vaginantia, equitantia, ensiformia, plicata, glauca; suprema in spatham convolutam mutata. Flores matutini fugacissimi, sambucum spirantes. Perigonium 3½ pollices latum, medio concavum, apice recurvum; laciniis basi longo intervallo distantibus. Sepala obovato-cuneata, membranacea, pallidè plumbea, in unguem lutea badio lentiginosa. Petala pluries minora, basi cuneata carnosa patula, apice dilatata apiculata membranacea et revoluta, basi et apice glabra, medio pubescentia, in unguem fusco-purpureo interruptè fasciata, in concavitate lutea cœruleo limbata, limbo revoluto flavo. Stamina 3 fertilia sepalis opposita; filamentis basi carnosis, paulò monadelphis, apice linearibus debilibus; antheris carnosis, linearibus, sagittatis, emarginatis, dorso suo stigmatis angulis agglutinatis ; 3 *sterilia subulata alternantia, filamentorum longitudine !!* Ovarium elongatum, triquetrum, polyspermum. Stylus filiformis apice in cyathum triangularem dilatatus, ultra cyathum tripartitus ; laciniis trilobis: lobis lateralibus petaloideis plumbeis acinaciformibus replicatis in medio stigmatibus alteris occurrentibus et cristam 3-lobam efficientibus, intermedio nano carnoso furcato, furcæ ramis cornutis latere reflexis.

A Mexican plant, raised from seeds imported by George Frederick Dickson, Esq. It is like a Tigridia, but taller and more glaucous; the flowers, which are rather smaller, are extremely fugacious, opening in the morning and soon closing again, and are a dead lead-colour, relieved only by the yellow of the petals, which is itself bordered with very bright light blue at the station of their principal convexity. In addition to the general colour, the lower part of the cup of the flower is banded with dull purplish brown. I have never seen in any other plant of this order a tendency to produce sterile stamens; here however they exist in the form of subulate membranous processes, alternating with the perfect stamens and as long as their filaments.

131. BANISTÊRĬĂ tĕnŭĭs.

B. *tenuis;* caule filiformi glabriusculo, foliis membranaccis lineari-oblongis undulatis obtusis glabris, umbellis ramentaceis pedunculatis paucifloris, petalis denticulatis, samarâ lævi reticulatâ: alâ oblongâ venosâ falcatâ.

A genuine species of this genus as most recently limited, inhabiting the neighbourhood of Buenos Ayres, whence its seeds were obtained by the Hon. W. F. Strangways. It is a greenhouse twiner, with small bright yellow flowers, and though not handsome is quite pretty enough to deserve cultivation. Its winged fruits are a rather bright reddish green.

132. PHYSŎSĬPHŌN carinātŭs.

P. *carinatus;* folio oblongo angusto obtuso aut emarginato racemis binis breviore, calycis tubo triquetro angulis carinatis, labelli lobo intermedio serrato scabro.

A plant resembling Physosiphon Loddigesii in the colour of its flowers, and the form of the leaves, but differing in having a serrated labellum, whose surface at the point is broken up into little sharp teeth. It has been recently obtained in a live state from Mexico by George Barker, Esq.; but was originally met with by Schiede, growing upon the trunks of trees near Sosocola in Mexico, as I learn from a dried specimen (No. 8), for which I am obliged to Professor Schlechtendahl.

133. PLEUROTHĀLLĬS vittātă.

P. *vittata;* folio ovali crassissimo, caule tereti, spicâ distichâ folio multò breviore, floribus tomentosis, sepalis oblongis planiusculis intus lævibus superiore longiore et angustiore sub apice calloso lateralibus acutissimis falcatis semiconnatis, petalis obovatis acutis serratis, labello ovato carnoso obtuso lævi basi excavato biauriculato margine scabro, columnâ petalorum longitudine, clinandrio cucullato crenulato.

A Mexican species imported by Messrs. Loddiges, and one of the handsomest of this not handsome genus. The flowers are slightly stained with dull purple; the lower sepals are broad and spotted with deep purple; and the upper sepal is striped with the same colour. It is very like *P. aphthosa*, from which it differs in the perfect smoothness of the sepals on their inside, in their form and proportion, and in the form of the petals.

134. DIĒNĬĂ cordātă.

D. *cordata;* folio solitario subrotundo cordato membranaceo-marginato, racemo tenui elongato, sepalis lateralibus ovatis obtusis intermedio lineari-oblongo, petalis linearibus, labello carnoso trilobato; laciniis lateralibus auriculæformibus intermedio ovato.

A native of Mexico, whence it was procured by Mr. Barker. It has a single cordate leaf, a slender spike of green small flowers, and narrow ovate pseudobulbs. It is a plant of no beauty, and differs from *D. Myurus* in the form of its lip, the number and form of its leaves, and in its long slender spike.

135. TRIGONĪDĬŪM Egertoniānūm.

Bateman in litt.

T. *Egertonianum ;* pseudobulbis ovalibus compressis sulcatis diphyllis aggregatis, foliis ensiformibus pedunculis subæqualibus vel brevioribus, sepalis ovali-lanceolatis acutis (lateralibus reflexis), petalis lineari-lanceolatis acutiusculis apice callosis, labello trilobo medio calloso petalis triplo breviore.—*J. B.*

" A native of the Bay of Dulce in Honduras, where it was discovered by G. U. Skinner, Esq. to whom I am indebted for its possession. It is a very distinct species of a most singular genus, and I have, therefore, not hesitated to name it after Sir P. de M. Grey Egerton, Bart. It approaches nearest to T. obtusum, from which its acute petals, and narrow leaves (frequently fully a foot and a half long), and clustered pseudo-bulbs abundantly distinguish it. Its flowers are of a pale liver-colour, dashed and veined with brown, and from a resemblance which they are supposed to bear to a "Dragon's mouth," the plant has received that appellation from the inhabitants of Honduras. It is of the easiest cultivation."—*J. B.*

136. TRIGONĪDĬŪM acuminātūm.

Bateman in litt.

T. *acuminatum;* pseudobulbis ovatis sulcatis monophyllis, foliis linearibus pedunculis longioribus, sepalis acuminatis apicibus recurvis, petalis ovali-lanceolatis mucronatis, labello trilobo petalis dŭplo breviore.—*J. B.*

"Found in Demerara by Mr. Colley and other collectors. It is a small though interesting species. The flowers are of a dull straw-colour externally, but are most elegantly pencilled on the inside with a rich brown. The petals in this, as in all the other species, have each a dark-coloured callosity at their apex, which is placed in such a manner near the entrance of the triangular cup which the sepals form, that the appearance of a pair of eyes peeping out is produced."—*J. B.*

137. SOLĀNŪM vernicātūm.

S. *vernicatum;* undique glabrum et quasi vernice obductum, caule herbaceo aculeatissimo, foliis pinnatifidis ciliatis petiolo costisque aculeatis; lobis oblongis subsinuatis acutis, umbellis infra-axillaribus nutantibus, antheris æqualibus.

An perenne annuumve nescio. *Caulis* pone terram hispidissimus, versus fastigium aculeis rarioribus longis gracilibus inæqualibus atropurpureis horridus. *Folia* cum petiolo pedalia, nunc palmata, sæpius pinnatifida aculeis costarum longis rectis gracilibus subæqualibus distantibus viridibus apice purpureis. *Pedicelli* et calycis tubus aculeati. *Corolla* viridi-flava, stellata, æqualis; antheris luteis.

Apparently an annual or perennial, raised in the Garden of the Horticultural Society, from Buenos Ayres' seeds, introduced by the Hon. W. F. Strangways. It looks as if some kind of varnish had been laid over every part, the corolla included, and its stem is covered densely with a crowd of long, slender, dark purple prickles. The flowers are small, pale greenish-yellow, and of no beauty. The leaves are dark green, with a stain of deep purple on the veins.

138. CIRRHOPĔTĂLŪM cornūtūm.

C. *cornutum;* pseudobulbis ovatis angulatis scapo paulò brevioribus, sepalis lateralibus in cornu connatis superiore petalisque ovatis ciliatis, labello angusto triangulari suprà sulcato subtùs carinato.

A remarkable species of this genus, with the lateral sepals united above their base into a kind of horn. The leaves are six or eight inches long, and the flowers dull purple. It was found by Mr. Gibson at Nungclow, on the Khoseea hills, growing upon rocks, and flowered at Chatsworth in August last.

139. SACCOLĂBĬŪM calceolārĕ.

Gen. et Sp. Orch. p. 223.

This plant has flowered at Chatsworth, having been found by Mr. Gibson at Chirra, on the Khoseea hills, at an elevation of 400 feet, growing on trees. It has small yellow flowers, blotched with reddish brown.

140. LAVATĒRĂ marĭtĭmă.

Gouan Illustr. p. 46. *t.* 21. *f.* 2.

This plant, which inhabits the cliffs of the south of France and of Spain, has lately been re-introduced by Mrs. Marryat, and forms a pretty half-shrubby greenhouse plant, producing during summer an abundance of large pale flowers, the ungues of whose petals appear like five bright purple rays. It was cultivated so long since as 1597 in Gerardes Garden, but has long been lost. Although called a Lavatera it is in fact a Malva, according to the present definition of that genus, and its name consequently should be altered, if it were worth while to make changes among genera so badly limited, that they must of necessity be wholly remodelled by the first monographist who undertakes their examination.

141. AGĀVĔ saponārĭă.

A. *saponaria;* acaulis, inermis, glaucescens, rhizomate crasso carnoso, foliis teneris lanceolatis acuminatis semiamplexicaulibus, spicâ simplici capitatâ, bracteis acuminatis ovario brevioribus.

Rhizoma ? crassum carnosum. *Truncus* nullus. *Folia* tenera, glaucescentia, inermia, lanceolata, subpedalia, apice convoluta, margine cartilagineo-serrulata, basi semiamplexicaulia sed angustata. *Scapus* 2-3 pedes altus, teres distantèr foliatus; foliis superioribus marcescentibus, acuminatis, sensim in bracteis ovario brevioribus mutatis. *Spica* capitata, simplex, 10-12-flora. *Flores* luridi, odorem debilem spirantes, subringentes ob dorsi sui contra flores superiores pressuram, semisexpartiti; *laciniis* æqualibus, lineari-oblongis, apice concavis; *tubo* paululùm curvo. *Stamina* 6, æqualia, medio tubi inserta; *filamentis* subulatis, rigidis, erectis, lurido-striatis, perianthio duplò longioribus; *antheris* linearibus, versatilibus. *Ovarium* inferum, carnosum, obsoletè hexagonum, 3-loculare, polyspermum; ovulis compressis serie duplici ordinatis. *Stylus* teres, filamentorum colore, iisque longiore, decurvus; *stigmate* capitato trigono pubescente.

For this new species of Agave I am indebted to James Bateman, Esq. who received it from his friend Mr. Skinner. The latter gentleman, travelling in Peru, found it growing on a sandy plain, and learned that it is used as a soap plant, its thick succulent tap-root possessing the property of forming a lather with water. It has dingy purple flowers, and is nearly allied to Agave lurida.

142. POLЎSTĂCHЎĂ ramŭlōsă.

P. *ramulosa;* ebulbis, foliis . . . . . , scapo paniculato, floribus glaberrimis, sepalorum basi conicâ elongatâ, labello cuneato trifido apice carnoso margine involuto: lobis acutis intermedio minore, disco plano imberbi.

A native of Sierra Leone, whence it was imported by Messrs. Loddiges, who flowered it in September, 1838. It is a small green-flowered plant with the habit of Polystachya luteola, but more branched, and with branchlets at the base of its ramifications. The smooth flowers prolonged at the apex (that is to say, at the base of the sepals) into a long cone, and the wedge-shaped naked lip, distinguish this from the other species previously known. The apparatus connected with the pollen-masses is very remarkable in this plant; the masses are two waxy bodies obliquely divided half-way into two very unequal lobes, and adhering to a long white wedge-shaped separable process, which has all the appearance of the caudicula of a Vandeous genus, and which is moreover attached to a minute separable gland; a trace of this structure also exists in *P. luteola*, and is probably what Sir W. Hooker saw when making the drawing afterwards published in his Exotic Flora. At first sight a fact like this would appear either to weaken the value of the distinction by which Orchidaceous plants of the Vandeous are separated from those of the Malaxideous division, or to render it necessary to transfer Polystachya from the latter to the former. But upon an attentive examination of the structure of the process in question, it is seen that it is not a cartilaginous elastic strap, adhering to a hard gland with a well defined outline, but a collection of large cells, loosely cohering, very convex, and filled with air; while the representation of the gland is a small hemispherical succulent mass, to which the cellules adhere. This process may therefore be regarded as a mere modification of the shapeless viscid matter to which the pollen-masses of many Malaxideous genera are attached.

Mr. Loddiges, in sending the above plant, accompanied it with specimens of Polystachya luteola from the West Indies and Ceylon, with the remark that those plants were improperly considered as the same species. Upon a careful reconsideration of their structure I have come to the conclusion that this opinion is well founded, and that they are to be distinguished upon sufficient grounds. In fact the probability of a difference existing between the Western and Eastern plants had occurred to me when writing the first part of the Genera and Species of Orchideous Plants, but I had no materials which would enable me to point out in what the difference consisted, except in colour. Upon a comparison of the live plants with each other, it now appears that the Eastern plant is much taller, with long lateral branches, that its flowers are smaller and yellower, with a tinge of purple, while the Western plant has pale watery green flowers; that its lip is wider, with the middle lobe rounded, and the disk furnished with a smooth oblong callosity projecting from among the down, which otherwise covers it, while the other has the middle lobe more wedge-shaped and the disk completely buried in down; finally, that the spaces between the ribs of the ripe fruit are plainly reticulated in the species from Ceylon, but free from reticulations in that from the West Indies. The two plants may therefore be separated for the future by the following diagnoses.

143. POLYSTĂCHY̆Ă lŭtĕŏlă.

Hooker Exotic Flora, t. 105.

P. *luteola ;* caulescens, foliis oblongo-lanceolatis, panicula racemosâ ramis abbreviatis, floribus glabris, sepalorum basi triangulari, labelli lobo medio subcuneato apiculato disco furfuraceo, capsulâ inter costas subaveniâ.=*Dendrobium polystachyon* Swartz.

The plant figured by Sir W. Hooker is certainly that from the West Indies ; and there must have been some mistake in the Liverpool Garden, where it was said to have been received from Dr. Wallich from the East Indies. It does not appear among any of Dr. Wallich's collections, and probably was never in his possession.

144. POLYSTĂCHY̆Ă zeylănĭcă.

P. *zeylanica ;* caulescens, foliis oblongo-lanceolatis, paniculâ racemosâ ramis elongatis, floribus glabris, sepalorum basi triangulari, labelli lobo medio rotundato apiculato disco furfuraceo in medio nudo calloso, capsulâ inter costas reticulatâ.=*Dendrobium polystachyum* Thouars Orch. Afr. t. 85.

In both these plants the disk of the labellum is covered with a fine frost-like mealiness, which is removed by the least touch. This mealiness is a curious modification of the hairs found in other plants. When undisturbed it consists of threads with egg-shaped joints, which are filled with air ; the surface of each joint is marked with wavy oblique striæ, and the interior uniformly contains a nucleus, to which there appears to belong a circulating apparatus of the same nature as that in the hairs of Tradescantia and other plants ; I have not however succeeded in actually observing any circulation. But the slightest touch suffices to destroy the cohesion between the joints of these singular necklace-shaped bodies, so that when they are placed on the field of the microscope the latter appears as if covered with the eggs of some insect ; it is only when they are removed from the labellum with great care that their real articulated structure, and their analogy with such hairs as those of Tradescantia, is made out.

145. BRYŌBĬŪM pubēscēns.

Under this name I long since distinguished a little green-flowered East Indian Orchidaceous plant which, though in many gardens, has never yet been published, except with a very short character in the Natural System of Botany, ed. 2. It has oval fleshy stems an inch long, closely covered by membranous scales, and terminated by about two narrow-oblong, fleshy, veinless, emarginate leaves. The flowers are a line and a half or two lines in diameter, green, membranous, and collected in small stalked heads very much longer than the leaves. The plant is naturally related to Phreatia and Eria, from both which it differs in having the lateral sepals equal at the base and not so prolonged, in conjunction with the foot of the column, as to resemble a spur. Artificially it will stand next Octomeria.

BRYOBIUM. Flores subvillosi. Sepala conniventia, conformia, lateralia basi æqualia. Petala angustiora et breviora, inter sepala reflexa. Labellum indivisum, inappendiculatum, basi constrictum. Columna nana. Pollinia Eriæ. ——Sp. 1. *B. pubescens*. Herba pusilla; caule carnoso vaginato unciali. Folia 2, carnosa, avenia, angustè oblonga, emarginata. Flores minuti, herbacei, in capitulum brevipedunculatum congesti, pilis stellatis rigidis obtusis aëre repletis laxè vestiti. Sepala ovata. Petala tenuiora et dimidio breviora, lineari-lanceolata, truncata. Labellum ovatum, basi lævissimè cordatum.——Eriæ Phreatiæque affine, sepalis lateralibus basi æqualibus diversum.

146. EPIDĒNDRŪM dichŏtŏmūm.

E. *dichotomum;* fruticosum, caule fruticoso decumbente filiformi dichotomo, foliis angustè lanceolatis acutissimis corymbo terminali longioribus, sepalis lineari-lanceolatis, petalis conformibus angustioribus, labello cuniculato cordato obtusiusculo basi bicalloso.

A green-flowered species obtained from Demerara by Messrs. Loddiges, and found in the Organ Mountains of Brazil by Mr. Gardner, (No. 631.) It has no beauty, but is remarkable for its hard, wiry, forking stem.

147. ĔRĬĂ pūmĭlă. *Gen. et Sp. Orch. p.* 68.

This little plant has flowered with Messrs. Loddiges, who received it without name from the Botanic Garden, Calcutta. It has small capitate flowers, membranous, and slightly tinged with pink: the horns of the labellum, the column and anther being also pink. It was originally described in the above work from bad and broken dried specimens, and is stated to have the middle lobe of the labellum ovate; but in reality that part is two-lobed with an intermediate point, each lobe being ovate. The specific character should therefore be amended thus :

E. *pumila;* foliis angustè lanceolatis acuminatis caulibus teretibus erectis subæqualibus, spicis capitatis lateralibus subsessilibus, ovario villoso, sepalis petalisque ovatis acutis basi tantùm pilosis, labelli trilobi basi bilamellati pubescentis lobis lateralibus subulatis patentibus; intermedio quadrato bilobo apiculo interjecto.

148. CĀTTLĔYĂ bĭcŏlŏr.

Bot. Reg. fol. 1919 *in textu. Sertum Orchidaceum, t.* 5. *f.* 1.

This beautiful species has just flowered with Messrs. Loddiges. It agrees perfectly with the figure above quoted, and is very remarkable for its labellum wanting the side lobes, so that it is only curved downwards, and cannot wrap up the column as in the other species of the genus. The sepals and petals are a dull tawny olive green, the labellum is of the deep violet which we find in the centre of that of Cattleya labiata.

149. CATASĒTŪM Mīllērī. *Loddiges.*

Under this name, given in compliment to Dr. Miller, of H. M. ship Victory, a most zealous collector of rare plants, Mr. Loddiges has distinguished a Catasetum from Brazil, with a stem two feet high, and dull purple spotted flowers with a half green lip, but otherwise very like *C. semiapertum.*

150. CLEISŌSTŎMĂ rŏsĕă.

C. *rosea;* caule folioso, foliis angustè lanceolatis coriaceis acutis, corymbis paucifloris subsessilibus, sepalis lateralibus obliquè ovatis acutis supremo petalisque linearibus obtusissimis, labello carnoso lobo medio rotundato lateralibus crassissimis transversè truncatis, dente operiente lineari acuto.

This little plant has small pale straw-coloured flowers with a pink lip, and in habit resembles Sarcanthus rostratus. It was sent by Mr. Cuming to Messrs. Loddiges from Manilla.

151. URCEOLĪNĂ pēndŭlă.

Herb. Am. p. 193. *app.*—U. fulva ? *ib.* 194. *t.* 26. *f.* 5.
Collania urceolata. *R. et Sch. syst.* 8. 892.

U. *pendula ;* bulbo ovato, foliis 2-4 longè pedunculatis laminâ 9-unciali 4 unc. latâ apiculatâ, scapo sesquipedali rotundatè subancipiti pallidè subglauco, spathâ sesquiunciali pallidâ, umbellâ 5-9-florâ pedunculis curvis spathâ brevioribus, germine pendulo $\frac{3}{16}$ unc· subgloboso costato viridi, tubo semunciali viridi, coronâ $\frac{1}{4}$ unc. sinubus interstamineis, limbo $1\frac{1}{4}$ unc. luteo-subrubescente apicem versus viridi albomarginato, filamentis limbo longioribus sepalino superiore elongato, petalino inferiore abbreviato, stylo producto, stigmate parvulo, antheris luteis brevibus a tertiâ parte affixis.—W. H.

"This remarkable plant flowered for the first time at Spofforth in June last, having been kept dry in the greenhouse during the winter, and it has verified the prediction (Herb. Amar. p. 194.) that "some attempt to form a membranous cup must be found in this genus when better known," under which persuasion, as is there stated, it was placed in the Pancratiform section, though it had been called a Crinum by Ruiz, who entirely overlooked the membrane on the teeth of which the filaments are borne, and of which the edge is conspicuous on looking into the flower, though its sides are completely adhesive to the limb, which can however be stripped off from it. This adhesion of the lower part of the segments of the limb to the cup gives it the appearance of forming a part of the tube, which is not truly the case. The size of the flowers is exaggerated in the Flora Peruviana, and it is therefore probable that the specimen which was named fulva from its apparently deeper colour, and its smaller and more numerous flowers, may not be distinct. Leperiza latifolia (Pancratium latifolium of Ruiz) is closely allied to Urceolina, and as the staminiferous membrane is found to exist in the latter, it is not improbable, (as stated Herb. Amar. p. 195) that the genus Leperiza will merge in Urceolina, supposing the lily-like scaly bulb represented in the Fl. Per. to be an error of the artist's; in which case the principal distinguishing feature of Leperiza would be the freedom of the upper part of the cup, the foliage and habit being very similar.

" Urceolina likes a strong rich loam. It is a native of the shady woods of the Peruvian Andes, and its leaves suffer from exposure to a fierce sun. It seems to thrive in a higher temperature than the Peruvian Ismenes, and not to grow so vigorously as they do out of doors in this country. The bulbs should not be watered in winter." W. H.

Mr. Herbert has favoured me with the foregoing notice of this curious little yellow and green flowered Amaryllidaceous plant.

152. MIMŌSĂ marginātă.

M. *marginata* (Eumimosa § 2. DC.) inermis, hispido-pilosa, foliis conjugato-pinnatis pedunculo filiformi villoso monocephalo duplò brevioribus, petiolo stipulis ovatis æquali, foliolis 13-jugis ovalibus marginatis ciliatis, bracteis spathulatis fimbriatis, calyce minuto in setis fisso, petalis 4 connatis, leguminibus capitatis oblongis compressis hispidissimis.

A shrubby plant, half-hardy, prostrate, running over any thing near it, and producing long slender shoots, which have an elegant appearance if allowed to hang down from the rafters of a greenhouse. The flowers are in small dull purple heads, upon peduncles at least twice as long as the leaves, and are produced abundantly in the months of July, August, and September. Nothing is more easily than the cultivation and multiplication of this plant; for the branches, if allowed to remain upon the ground, emit roots at every joint. It is said to have survived the winter of 1836 and 7 in the open border; in the nurseries it is sold under the names of *Mimosa mexicana*, *scandens*, and *prostrata*.

153. SATY̆RĬŪM cāndĭdūm.

S. *candidum;* foliis binis subrotundo-ovatis glabris, vaginis caulis utriculatis inflatis distantibus margine pellucidis lævibus, bracteis oblongo-lanceolatis acutis reflexis, sepalis linearibus obtusis patentibus, petalis conformibus minoribus ascendentibus apice recurvis, labello inflato obtuso apice inflexo dorso carinato, calcaribus pendulis ovario longioribus.

One of the terrestrial Orchidaceæ of the Cape of Good Hope, concerning which so little is as yet known in Europe. It was brought home by Sir John Herschel, with whom it flowered in Hanover Terrace, Regent's Park, in October; its flowers are pure white, and emit a most delightful aromatic fragrance. In many respects it is like *S. cucullatum*, which Sir John Herschel has also succeeded in flowering, especially in having the sheaths of the stem inflated, and so grown together at the edges as to form a kind of cup, capable of holding water. But it differs in the colour of the flowers, which are pure white, not green, in their scent which is aromatic and not fetid, and in their size, for they are larger; the edge of the cups of the stem is quite smooth and pellucid, not fringed with a coarse short hairiness; the labellum has a sharp-keeled back, is inflated, and the apex is reflexed, all which circumstances are at variance with *S. cucullatum;* finally the dorsal lip of the stigma of the latter species is short, linear, and emarginate, while in *S. candidum* it is short, round, and entire. These are not all the distinctions between these species, but they are abundantly sufficient to enable Botanists to recognize them; in a dried state they are easily confounded. The first knowledge I had of this species was from the collection of M. Drége, who found it near Gnadenthal and Riebokscasteel; I afterwards met with it in Sir W. Hooker's Herbarium, from Mr. Harvey. It appears from the specimens sent home by the latter Botanist, that its cups are occasionally enlarged into leaves, a circumstance which also happens in *S. cucullatum* itself.

154. SATY̆RĬŪM papillōsūm.

Illustrations of the Genera and Species of Orchidaceous Plants, t. 14. fructification.

Of this lovely plant I have also received fresh specimens, through the kindness of Sir John Herschel. The flowers are of a deep clear rose colour, melting into white, and richly spotted with purple in the throat; they smell like sweet-vernal grass. I know no Orchidaceous plant prettier than this.

It is particularly deserving of notice that the first of these species was planted *in the open ground* in May last; and that it was under such circumstances that the fine specimens I examined were produced. Upon this subject Sir John Herschel has favoured me with the following note.

"The specimen of S. candidum was flowered *in a box* of bog earth, openly exposed, except in heavy rains when it has been taken in; and in cold nights has been protected by mats. But there are also several specimens of the S. candidum now flowering in an open bed under a south wall, with no protection whatever. Of these, however, the spikes are not yet so fully developed. Some specimens of that very fine Satyrium, the "carneum," have also flowered (though very pale in colour) in garden pots of bog earth, exposed as in the case of the S. candidum ; some have come to very handsome heads, though far inferior to what they do with a very little care in South Africa, where specimens have been obtained with 120 or more flowers in the spike.

"The Satyrium papillosum was brought over in a box of Cape soil in a growing state, and though generally exposed, in London, has been occasionally brought in doors in cold nights ; and, since the flower-stalks have become fully developed, has been entirely kept in the house, and sometimes placed near a fire.

"Satyrium chrysostachyum (a fine orange-flowered kind) similarly imported, has grown well and gone through its course, but without throwing up a single flower-stalk. It is now dormant, but the new tubers are satisfactorily formed, and promise well for next year."

155. SATY̆RĬŪM cārnĕūm.

Brown in hort. Kew. ed. 2. 5. 196.

This is the very fine species alluded to by Sir John Herschel in the previous note. It has been well figured in the *Botanical Magazine*, *t.* 1512. In herbaria it is very rare. I have only seen one wild specimen, collected on sandy hills about Groenevalei, at the Cape of Good Hope, by Drége. It bears large, oblong, dense spikes of whitish flowers tinged with pink, and is in all respects a beautiful plant. It is not a little singular that so conspicuous a species should have been overlooked by all the writers upon the South African Flora.

156. DENDRŌBĬŪM denūdāns.

Don Prodr. fl. nep. 34. *Gen. et Sp. Orch. p.* 84.

This species was received by His Grace the Duke of Devonshire upon Mr. Gibson's return from his Indian mission ; and having been subsequently imparted to others, has flowered in several collections. The finest specimens I have seen were sent by Mr. Bateman to Messrs. Loddiges. The stems are erect, about six inches high, not very unlike a small state of *Dendrobium nobile*, and are covered by a profusion of nodding racemes of rather small green and white flowers.

157. CŒLŎGY̆NĒ Wallichiānă.

Lindl. Gen. et Sp. Orch. 43.

At last a plant of the beautiful division of Cœlogyne, called Pleione by Professor Don, has appeared in the collection at Chatsworth, whither it had been brought by Mr. John Gibson. It has large, handsome, scentless, deep rose-coloured flowers, growing close to the ground, from within some hard tuberculated sheaths, proceeding from the base of depressed flask-shaped green and purple speckled pseudo-bulbs. In its native country this and allied species cover the ground with a pavement of their curious stems, which wither up in the dry season, but change into a brilliant carpet of rosy flowers upon the approach of rain. A figure is prepared for this work.

158. MEDINĪLLĂ erythrophȳllă.

M. (Sarcoplacuntia?) *erythrophylla;* ramulis teretibus lævibus, foliis oppositis breviter petiolatis lanceolatis acuminatis basi acutis triplinerviis, cymis axillaribus, floribus octandris, antheris muticis, calyce truncato.

Among the plants brought from India to Chatsworth by Mr. John Gibson was a plant called *Melastoma erythrophylla*, which, upon flowering, proved to belong to the beautiful genus Medinilla, of which Dr. Blume has described twenty-one species in his observations upon Melastomaceæ in the *Botanische Zeitung*. It appears to be a small shrub; the branches are round, even, without any trace of inequalities; the leaves are opposite in pairs, fleshy, lanceolate, acuminate, quite acute at the base, triple-nerved, and entirely smooth on both sides; when young they are deep red, when old they are bright green. The flowers are bright rose colour, three-quarters of an inch long, and arranged in axillary cymes. The species is apparently very near *M. rubi-*

cunda, a Sumatra plant, with the leaves obtuse at the base. One of the principal features in the genus Medinîlla, namely, the spur at the back of the anther, is so nearly wanting here that it only appears in the form of a very small lobe, quite at the base of the anther, opposite the anterior auricles. The species is quite a Medinilla in habit.

159. GARDŌQŬIĂ betonicoīdēs.

G. *betonicoides;* caule stricto leviter pubescente acutangulo, foliis petiolatis ovatis serratis glabris utrinque viridibus basi et apice integris floralibus subsessilibus integerrimis, cymis densis pedunculatis basi foliatis, calycis glabriusculi dentibus brevibus acutis, corollâ arcuatâ duplò longiore labio inferiore denticulato.

Raised by Messrs. Lowe and Co. from Mexican seeds, along with the beautiful Salvia patens. It is an erect sweet-scented herbaceous plant, with the upper part of the stem producing from every axil its cymes of bright purple flowers, which give it the appearance of a Betonica. It approaches *G. multiflora*, from which it differs in having much more serrated leaves, smaller flowers, and a different habit. It is a pretty addition to the collections of greenhouse plants, flowering in October.

160. TRADESCĀNTĬĂ iridēscēns.

T. *iridescens;* acaulis, foliis oblongis acutis concavis glabris ciliatis subtùs pubescentibus, umbellis laxis terminalibus sessilibus, petalis obovatis staminibus 3-plò longioribus.

For my acquaintance with this very pretty plant I am indebted to Mr. Booth, who sent me a figure and the following description some months since.

"This lovely species of Tradescantia is a native of the neighbourhood of the Real del Monte mines in Mexico, from whence roots of it were forwarded in the spring of 1838 by Mr. John Rule to Sir Charles Lemon, Bart. M.P. in whose collection it flowered in June.

"*Plant* stemless. *Leaves* at first hollowed in the middle and curved, afterwards spreading nearly flat, ovate-lanceolate, acute; three inches and a half long, and one inch and a half broad, thick and fleshy, having a semitransparent, or frozen appearance, so as to shew a number of pale-coloured longitudinal veins, of which four or five on each side of the midrib are more conspicuous than the rest. Above the leaves are smooth and of a rich shining green; beneath they are rather paler, and covered with brownish, short pubescence, the edges being fringed, or ciliated, with the same. *Flowers* numerous, surrounded by the leaves, and opening in succession in bunches of six or eight at a time. In cloudy weather they continue expanded all day, but when exposed to bright sunshine they close up and decay before noon. *Pedicels* rather more than half an inch long, round, and of a pale green, together with the three *sepals*, which are ovate oblong, and clothed with numerous small white hairs. *Petals* three, larger and spreading, roundish ovate, tapering a little towards the base, and of a bright reddish purple. *Filaments* about half the length of the petals, of a deeper purple, and hairy at the base. *Anthers* large, deep yellow. *Style* not quite so long as the filaments, with a round greenish *stigma*.

"It has been hitherto kept in a warm greenhouse, but it will probably endure the open air, and ultimately become a half-hardy herbaceous plant."

161. MAXILLĀRĬĂ Cōllĕyī.

Bateman in litt.

M. *Colleyi;* pseudobulbis sphæricis, pedunculis radicalibus multifloris, labello postico oblongo apice triangulari obtuso medio 1-dentato.

This species, although no doubt new, is very near *M. squalens*, from which it differs in the form of the pseudobulbs and labellum. Its dingy flowers have a disagreeable smell, like that of an over-ripe melon.

162. IPOMǢĂ tyriānthĭnă.

I. *tyrianthina;* radice tuberosâ, caule volubili fruticoso verrucoso, foliis subrotundis cordatis acuminatis molliter villosis, pedunculis multifloris foliis longioribus, corolla infundibulari calyce villoso 4-plò longiore.

This is a most beautiful plant, for which our gardens are indebted to George Frederick Dickson, Esq. who obtained the seeds from Mexico, and presented them to the Horticultural Society. One of the houses in the garden at Chiswick was richly ornamented with it in October last. Neither I. rubro-cœrulea, nor I. Horsfalliæ, nor any of the other noble species which have found their way to Europe of late years, excels this in the richness of its colour, which is of a peculiar tint, resembling nothing so much as the deepest purple ever seen in the finest varieties of Petunia violacea. As the flowers are fully two inches and a half long, and grow in clusters upon the end of long graceful peduncles, the rich effect of this species may be easily imagined. The stem is shrubby, so that it will be multiplied by cuttings, and is distinctly marked by small elevated tubercles. The leaf-stalks are three inches and a half long, and covered with close-pressed hairs ; the leaves are of about the same length, dull green, soft with long hairs, roundish, acuminate, deeply cordate, with a very slight tendency to be toothed ; the veins of the under-side are remarkably prominent. The peduncles are thinly covered with reversed hairs, and are about seven inches long, having five or six flowers at the end. The bracts are linear and obtuse ; the pedicels are rigid, grey with reversed hairs, and about half an inch long ; the sepals are ovate, acute, convex, and shaggy with long spreading hairs. The stamens are about one-third the length of the corolla, and are bearded at the base with long loose hairs.

163. EPIDĒNDRŪM calamārĭūm.

E. *calamarium;* pseudobulbis teretibus calamiformibus diphyllis, foliis linearibus planis abruptè acutis, racemo simplici erecto, bracteis squamiformibus acuminatis, sepalis patentissimis linearibus acutis apice recurvis, petalis angustioribus subspathulatis, labello postico subrotundo acuto convexo.

A Brazilian species, allied to *E. fragrans*, imported by Messrs. Loddiges, with whom it flowered in October. It has pale, whole-coloured, yellowish green flowers, with five small violet-coloured spots at the base of the lip. It is a plant of little beauty, and no fragrance.

164. CATASĒTŬM porĭfĕrum.

C. *poriferum;* labello plano cordato-ovato truncato crenato, lobo apicis elevato carnoso ovato medio nectarifero, dente baseos ovato incurvo, columnâ cirrhosâ.

This is a remarkable species, sent to Messrs. Loddiges from Demerara by Mr. Schomburgk. In its manner of growth and general appearance it agrees with Catasetum deltoideum, like which its flowers are richly spotted with deep purple broken fasciæ, closely arranged upon a clear green ground. The difference between these two species resides in the lip, which, in the present plant, is dull green, nearly flat, deeply cordate, truncate at the apex, with an obscurely crenated margin; at its base is an elevated yellow-tipped broad tooth, and at its apex an ovate, yellow, fleshy, elevated lobe, in the middle of which is a pore secreting honey. The sepals are oblong, the petals narrow-lanceolate, the column just as in *C. deltoideum.*

165. PLEUROTHĀLLĬS muscoīdĕă.

P. *muscoidea;* cæspitosa, acaulis, folio ovali biconvexo, pedunculo setaceo bifloro, perianthio explanato ringente, sepalis lineari-lanceolatis lateralibus basi imâ connatis, petalis multò minoribus conformibus, labello oblongo-lineari obtuso canaliculato, polliniis 2 pyriformibus connatis.

This is the most tiny Orchidaceous plant yet discovered. It has no stem; the leaves are two lines and a half long; the peduncle as fine as a hair, and about four lines long. The flower is dull purple, with a pale orange-coloured margin to the sepals and petals; the lip is linear, obtuse, richly stained with purple, dull orange along the middle and at the edge, very slightly cordate, and contracted for a short space in the middle. For a specimen I am indebted to Messrs. Loddiges.

166. NOTY̆LĬĂ punctātă. *Gen. et Sp. Orch.* 192.

N. *punctata;* labello unguiculato cordato-ovato obtuso basi calloso margine reflexo, sepalis petalisque obtusis; rachi flexuosâ.

I believe the original species to which this name belongs is lost to our gardens, and its place has been taken by other species, resembling it enough to be mistaken for it. At least I must confess that I had regarded specimens sent me from time to time by Mr. Bateman, Mr. Barker, Mr. Loddiges, and others, as mere varieties of Notylia punctata. I am however now satisfied, from the examination of specimens placed in my hands by Mr. Loddiges, that the supposed varieties constitute at least five well marked species; all agreeing in habit, but differing in the form of their labellum, &c. in the size of their flowers, in smell, and in the length of their racemes. I hope the specific characters now given will prevent confusion in future.

The true *Notylia punctata* has whiter flowers than any of the others, with a short flexuose raceme, and obtuse sepals, petals, and labellum, at the base of the latter of which is an elevated callus.

167. NOTY̆LĬĂ incūrvă.

N. *incurva;* labello unguiculato cordato-ovato acuminato sub apice carinato basi ecalloso margine reflexo, sepalis lateralibus apice rectis petalisque lanceolatis acutis columnâ recurvâ.

Of this the flowers are larger than any of the others, a pale straw colour, with two or three yellow spots near the base of each petal; the divisions are lanceolate and acute, not acuminate; the ends of the lateral sepals are straight, not reflexed; and the column is rather abruptly curved inwards towards the dorsal sepal. Messrs. Loddiges obtained it from Trinidad.

168. NOTY̆LĬĂ Barkērī.

N. *Barkeri;* labello unguiculato cordato-ovato basi calloso margine subreflexo, sepalis lateralibus apice reflexis petalisque lineari-lanceolatis acutis, columnâ recurvâ.

Very like the last, but the flowers are smaller and yellower, the labellum is not acute, and it has a distinct elevated callosity at the base. Mexico, Mr. Barker, 1837.

169. NOTY̆LĬĂ tĕnŭĭs.

N. *tenuis;* labello unguiculato cordato-ovato setaceo-acuminato basi ecalloso margine reflexo, sepalo supremo falcato inflexo lateralibus apice revolutis petalisque linearibus acuminatis, columnâ rectâ.

This species is readily known by its very narrow acuminate sepals and petals, erect column, and acuminate lip, which is not carinate at the point. Its flowers are smaller than those of N. incurva. Native of Demerara, Messrs. Loddiges.

170. NOTY̆LĬĂ micrānthă.

N. *micrantha;* labello subsessili plano ovato acuto basi calloso, sepalis petalisque linearibus acutiusculis, columnâ rectâ.

The flowers of this are not more than half the size of the smallest of the others; they are pale green with a yellowish lip, and the petals have no spots. Obtained from Demerara by Messrs. Loddiges.

171. CŒLŎGY̆NĒ ovālĭs.

C. *ovalis;* pseudobulbis fusiformi-ovalibus striolatis, foliis geminis ovali-lanceolatis acutis spicâ sublongioribus, pedunculo basi vaginato sub-4-floro, bracteis concavis cartilagineis floribus longioribus, petalis linearibus reflexis, labelli trilobi lobis lateralibus in fronte pectinatis intermedio ovato emarginato pilis fuscis villoso et fimbriato, lamellis 2 elevatis crispis, columnâ apice subintegrâ.

In arranging the dried specimens in Dr. Wallich's Indian herbarium some years since, I met with a plant, from Nepal and Kamaon, without flowers, which I took for *C. fimbriata*, and under that name it was eventually catalogued. Lately however a plant of this species, sent by Dr. Wallich to Messrs. Loddiges, has flowered, and proves, although very near *C. fimbriata*, to be a different species. Its general appearance is the same; but the pseudo-bulbs are narrow and oval, not roundish-oblong; delicately striated, not covered with a thick dull veinless cuticle. The flower is twice the size, of nearly the same colour, but the margin of the middle lobe is more decidedly shaggy with brown hairs, and the two elevated lamellæ which pass along its middle from end to end are crisp, not straight. An opportunity having occurred of examining fresh flowers of *C. fimbriata* at the same time, it enabled me to amend the specific character of that species, as follows:

172. CŒLŎGY̆NĒ fimbriātă.

Gen. et Sp. Orch. 41.

C. *fimbriata;* pseudobulbis subrotundo-oblongis estriatis, foliis geminis ovali-lanceolatis undulatis acutis spicâ longioribus, pedunculo basi vaginato paucifloro bracteis concavis cartilagineis deciduis floribus longioribus, petalis linearibus reflexis, labelli trilobi lobis lateralibus in fronte denticulatis intermedio ovato pilis fuscis fimbriato, lamellis 2 elevatis rectis, columnâ apice denticulatâ.

173. MAXILLĀRĬĂ porrēctă.

M. *porrecta;* foliis oblongo-lanceolatis trinerviis, pedunculo erecto unifloro vaginato, sepalis linearibus apice concavis obtusis lateralibus incurvis, petalis conformibus, labello angusto apice trilobo medio calloso pubescente: lobo medio convexo rotundato margine crispo revoluto.

An uninteresting species, obtained by Messrs. Loddiges from Rio Janeiro. The flowers are about the size of those of *Maxillaria picta*, of a pale buff, with the sepals and petals tipped with dull red. The labellum is the same colour on the outside below the point.

174. MAXILLĀRĬĂ macrophȳllă.

Pöppig et Endl. nova genera et species pl. vol. 1. *t.* 64.

M. *macrophylla;* foliis oblongo-lanceolatis plicatis scapo unifloro ascendente laxè vaginato duplò longioribus, bracteâ herbaceâ cucullatâ acutâ ovarii longitudine, sepalis oblongis undulatis patentibus apice recurvis basi intùs pilosis, petalis erectis columnâ longioribus oblongis carnosis apice recurvis margine postico versus apicem sublobato, labello breviore oblongo concavo apice trilobo: laciniâ intermediâ subrotundâ serratâ, appendice linguæformi concavo adnato inter lacinias laterales rotundatas incurvas, antherâ villosâ.

Very like *M. Deppii*, but much larger. The sepals are green outside, and dull purplish brown inside; the petals are very pale straw-colour; the labellum is slightly sprinkled with crimson dots. The flowers are about three inches across, and have a disagreeable smell, resembling apples beginning to ferment. Messrs. Loddiges imported it from Columbia; it was originally found by Pöppig in dry thickets in the transandine parts of Peru, in the district of Chihuamccala, near Cuchero, always growing in the ground, and never upon trees.

Very nearly related to this is a species, inhabiting the same country, but not yet introduced, of which I have specimens gathered by Mr. Mathews (No. 1026), the character of which is the following :

175. MAXILLARIA costata.

M. *costata ;* foliis lanceolatis plicatis scapo unifloro ascendente laxè vaginato longioribus, bracteâ herbaceâ cucullatâ acutâ ovario multò longiore, sepalis petalisque M. macrophyllæ similibus, labello trilobo concavo laciniâ intermediâ rotundatâ serratâ, appendice carnoso emarginato adnato 5-costato inter lacinias laterales, antherâ glabrâ.

176. MORMŌDĒS pardīnă. *Bateman in litt.*

M. *pardina ;* pseudobulbis turbinatis foliis strictis 4-plo brevioribus; racemo nutante multifloro foliis breviore, sepalis petalisque subæqualibus ovato-lanceolatis acutis conniventibus, labelli trilobi lobis lateralibus acutis decurvis intermedio elongato acuminato. *Orchid. Mex. et Guatemala, tab.* 14.

"A fine new species of this remarkable genus, discovered by Baron Karwinski in Oaxaca, and by him communicated some years since to my collection at Knypersley, where it flowered in July last. Its flowers are of a primrose colour, spotted with reddish purple in every part, and they exhale a most delightful perfume. Its habit is very robust, being at least three times as large as that of the old M. atropurpurea.

"Shortly after M. pardina flowered with me, I received from Mr. Barker specimens of a remarkable variety of it, the flowers of which were entirely self-coloured." *Note from Mr. Bateman.*

177. BIFRENĀRĬĂ? longicōrnĭs.

B. *longicornis ;* pseudobulbis elongatis tetragonis, foliis oblongo-lanceolatis subplicatis nitidis, racemo laxo multifloro, sepalis lateralibus ovatis acutis basi connatis in calcar longum clavatum productis, petalis ovatis acutis, labello longè unguiculato spathulato apice trilobo laciniis rotundatis medio pubescente disco elevato calloso, polliniis sphæricis subsessilibus glandulis duabus discretis.

If this plant is really to be referred to Bifrenaria, it will be necessary to modify the character of that genus very considerably ; for the lateral sepals are extended into a long slender clavate spur, and there are two glands as well as two caudiculæ to the pollen-masses. Its relationship to *B. aurantiaca* is however such as to make me unwilling to separate it at present. The flowers are orange spotted with brown, and in a raceme very like that of the species just mentioned. Messrs. Loddiges imported it from Demerara.

178. TRICHOCĒNTRŌN iridifŏlĭūm.

G. Loddiges in litt.

T. *iridifolium*: foliis distichis lineari-lanceolatis carnosis, labello ovali obtuso indiviso basi bilamellato, columnæ alis parvis obtusis integris.

A small species, with pale yellow flowers, having the lip delicately streaked with darker yellow. It was imported by Messrs. Loddiges from Demerara.

179. ÆTHĒRĬĂ occūltă.

Goodyera occulta, *Thouars orch. afr. t.* 28. Platylepis goodyeroides, *Ach. Rich.*

A specimen of this plant, obtained from the Mauritius, has flowered with Messrs. Loddiges. It proves to belong to the genus Ætheria of Blume: that is to the Goodyeras, with the lip and the column united to each other by their edges. The plant is about a foot high, with a dense oval spike of membranous downy bracts, from among which the small white and green flowers are just protruded.

180. LĬPĂRĬS pēndŭlă.

L. *pendula*; pseudobulbis elongatis compressis diphyllis, racemo terminali longissimo pendulo, sepalis reflexis obtusis lateralibus oblongis intermedio antico angustiore et longiore, petalis linearibus reflexis, labello postico ovato concavo basi 2-calloso.

A native of the continent of India, whence it was obtained by Messrs. Loddiges. The flowers are small, green, and arranged in a pendulous raceme full a foot long. All the parts of the flower abound in compound 5-threaded spiral vessels, and raphides lodged in cubical parcels in the inside of cells larger and more transparent than those surrounding them. The latter give the parts the appearance of having transparent dots. The species ranges near *L. longipes*.

181. IONŌPSĬS tĕrĕs.

I. *teres;* foliis teretibus, scapo simplici apice paucifloro, sepalis acutis lateralibus semiconnatis, labello obovato-lanceolato apice undulato quasi trilobo medio bilamellato.

A curious little plant, with delicate lilac-striped flowers. Imported from Demerara by Messrs. Loddiges.

182. PLEUROTHĀLLĬS stenopĕtălă.

G. Lodd. in litt.

P. *stenopetala;* folio oblongo apice rotundato basi in petiolum planum angustato racemo multò breviore caule longiore, bracteis membranaceis cucullatis, sepalis acuminatissimis linearibus intus pubescentibus omnibus ferè liberis, petalis nanis obtusis dorso carinatis labelloque oblongo conduplicato glabris.

A native of Brazil, whence it was obtained by Messrs. Loddiges. The flowers are pretty, although of a very pale green, and they have a powerful but agreeable smell of balsam. The midrib of the petals and the middle of the back of the labellum are crimson. It is very near *P. sclerophylla.*

183. BOLBOPHY̆LLŪM cūprĕūm.

B. *cupreum;* folio angusto solitario scapo longiore, racemo brevi oblongo nutante, petalis setaceo-acuminatis serrulatis, labello ovato dente utrinque setaceo, columnæ angulis aristatis.

A native of Manilla, whence Messrs. Loddiges received it from Mr. Cuming. The flowers are copper-coloured, and have a smell extremely like that of Valerian root.

END OF THE VOLUME FOR 1838.

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